



College AND UNIVERSITY Business

NOVEMBER 1945: 6th Progress ★ Future Railroad Plans
★ Pitfalls in University Press ★ Dining Hall ★ Survey of Dormitory
Furnishings ★ Meeting Plant With Future ★ Visual Aids Equipment

GUEST EDITORIAL

THE GOVERNMENT OWNS AROUND 2,000,000 SURPLUS textbooks having a list value of at least \$5,000,000, but few veterans or regular students are using these books this fall. As a result, new editions will make the lot virtually worthless for future use. Why has this item of surplus been permitted to become a postwar casualty?

The business of disposing of surplus books has apparently been caught in the cross fire of one pressure group working against another. Authority for disposal of the books has been shifted from agency to agency for the last two years, no department yet having devised a workable, businesslike plan. The navy was handling the job when the responsibility was shifted to the Surplus Properties Division, then to the Reconstruction Finance Division. The latter threw it to the War Assets Board. Finally the War Assets Administration gave the job of disposing of the books to the Library of Congress. After the Library of Congress had offered books for sale and orders had been received, the plan was declared illegal by the Attorney General.

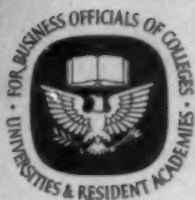
The present plan is under the supervision of the Veterans Administration with the Library of Congress doing the actual shipping. The plan rewards a school at the rate of 25 cents a copy for giving a book to a veteran. The requirements for the records involve more work and red tape than are required for the school actually to sell a new book or to issue one to a veteran under the G.I. bill. On the surface, the plan looks logical but, in actual practice, it requires the establishment of a separate book depot on every campus.

Bookstore sentiment on the plan was tested in a questionnaire last July. Only one in four schools had plans to attempt to procure surplus books. Most of the schools that were going to try to get the books were doing so solely because they thought they might be charged with

refusal to cooperate. Now when officials of Veterans Administration and of other government agencies receive complaints of an inadequate supply of textbooks, they naturally put the blame on the schools. When they do not have complaints, forgetting the fact that those books represent several million dollars in taxpayers' money, they can say, "See, you didn't need them so badly after all."

Sentiments of bookstores were expressed in questionnaire responses as follows: "Our store has no facilities and there are no adequate facilities on the campus." "We have had our experience with the navy and the army. Our experience with handling books for the V-12 was very unhappy; it cost us far more to handle them than the 25 cents we obtained for handling." "*We already have our books.*" "There is too much red tape and too little margin." "Veterans comprise a small portion of total class; where do the other students get their texts?" "If our experience repeats itself on ordering from any government agency, we would receive the books about the time the veterans are retiring because of old age." "Few titles on list No. 1 are of any use in a liberal arts school." "It is too much trouble to attempt to keep the books segregated." "Editions are not shown on the list." "Our school facilities are already too crowded without this."

Plans for freeing surplus textbooks for re-use have been inexcusably bungled. A simple workable plan should have been evolved that would have made no distinction between veterans and regular students. Books should have been offered at a fair used price of one third the list price. Wholesale dealers might have been given a slightly lower price. After all orders had been filled at these prices, the rest of the lot should have been sold to the highest bidder. *Why are books any different from any other surplus?*—RUSSELL REYNOLDS.



College AND UNIVERSITY Business

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R. J. MAASKE

ROBEN J. MAASKE, president of the Eastern Oregon College of Education, is a Nebraska Cornhusker who followed Greeley's "go West, young man," to carve out his educational career. A two year professorship at the University of North Carolina, however, has given his career geographic balance. Dr. Maaske also pinch hits as a visiting professor to the universities of Chicago, Colorado, South Dakota and Idaho and is a skilled writer with 61 magazine articles to his credit. Sports and music serve as his main interests for relaxation. . . . SAVOIE LOTTINVILLE, former Rhodes scholar from Oklahoma, is now director of the University of Oklahoma Press after serving successively as assistant editor and business manager; prior to those assignments, he was a newspaper reporter. . . . ROLLIN D. HEMENS, assistant director of the publication department of the University of Chicago Press, first began his professional career in the banking business in Chicago. He has authored magazine articles before and admits that he likes to travel, having returned this summer from a trip to England, Holland and France.



P. R. WENDT

PAUL R. WENDT, director of the audio-visual education service at the University of Minnesota, discusses, along with two co-authors, "the things to look for" when buying visual education equipment. He has written extensively for visual education magazines. Photography and motion pictures are his hobby. . . . Photographs and motion pictures are his hobby as well as his vocation. In 1937-38 he traveled on the Rockefeller General Education Board fellowship in film production and spent considerable time in Hollywood and New York. . . . ELIZABETH A. SMITH is head dietitian at Marshall College where construction of a new kitchen and dining hall has just been completed. . . . JOSEPH L. ERNST has recently returned to Rochester, N. Y., as purchasing agent for the board of education after four years in the U. S. Army. For two and one half years he was assistant general purchasing agent of the Southwest Pacific forces, stationed with the quartermaster corps in Australia. He held the rank of colonel and was awarded the Legion of Merit in 1945.



J. C. B. MOORE

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Check List for

Reviewing Retirement Programs

- ☐ *Has your plan been checked to ascertain whether or not the original details of the plan are being followed?*
- ☐ *Are all of your staff members participating as soon as they become eligible or have some been permitted to defer entrance into the plan?*
- ☐ *Are contributions sufficient to provide adequate benefits in relation to decreased interest rates and higher living costs?*
- ☐ *If your retirement plan has been in operation for some time, has it been reviewed with an eye for completeness and satisfaction?*

WHY A FACULTY RETIREMENT PLAN?

WILLIAM H. COBB

Assistant Vice President
Teachers Insurance and Annuity
Association of America

NO ONE CAN AVOID OLD AGE. AND to many, old age is an economic death—a time when earning ability has waned or ceased; a time when faculty members should step out of the classroom or the laboratory. This creates for the employing institution the problems of how to smooth the parting with those teachers whose productive vigor is gone, how to finance benefits at retirement and how to avoid being recurrently embarrassed in the effort to relieve the classroom of superannuated professors in a socially acceptable manner.

WITHOUT A PLAN

Experience has disclosed that a college administrator, in the absence of a retirement plan, usually relies upon one or a combination of the following methods and, as a result, may be plagued continually by embarrassing situations:

1. The aged professor is continued too long in the classroom. This is unfair to the students and the administrator must admit that the value of service rendered is no longer related to regular compensation. This situation is detrimental to effective teaching and, as a consequence, teaching costs rise.

2. The aged professor is dismissed with no pension provision and the

administrator, accused of cruelty, may be confronted with protests from his colleagues, alumni and the public.

3. The aged professor is retired with a pension paid from college funds. In this instance, the administrator must admit that his college has assumed an indefinite liability that may become a financial burden. Nor is it fair for a current administration to pledge the revenues of future administrations for the pensioning of present faculty members. The precautions necessary to give assurance of ability to pay pensions years hence are foreign to the purpose for which a college or university operates. At this point education becomes confused with insurance operations.

During the last quarter of a century college and university administrators as well as faculty members have become increasingly sensitive to the importance of adequate retirement plans. While many institutions have adopted such plans, others, unfortunately, have failed to plan with any definiteness for the retirement of superannuates.

Poverty and complacency are perhaps the most frequent deterrents to the adoption of a retirement plan. The claim of poverty is based on the

conclusion that something else is more important than a retirement plan, a conclusion in which the best educators probably will not concur. The attitude of complacency indicates that the college administration is not alert to the need and hence must be convinced that a retirement plan is fundamental.

REASONS FOR A PLAN

A carefully arranged retirement plan effectively operated and funded through an insurance company is a sensible solution to the college old age problem. If the plan is financed by joint contributions, benefits are acquired without an undue burden upon the individual or upon the college budget. The participant has comfort in the knowledge of anticipated secured income at the agreed-upon time of retirement; the college administrator has no cause for embarrassment when a faculty member is asked to retire because of the previous mutual understanding, and the financial burden of pensions has long since been settled.

There is widespread conviction that a sound retirement plan helps to attract new staff members, to hold those who have proved to be valuable and to part before retirement with those who may do better elsewhere.

Some of the most promising young professional men have declined offers of otherwise attractive appointments because no satisfactory procedure was in operation to provide retirement income. Furthermore, a young ambitious junior professor is keenly aware today that his chances for promotion to the chairmanship of his department are much better in an institution that has provided for the orderly retirement of a superannuated senior faculty member.

While federal Social Security has covered industrial employees for ten years, many business corporations provide substantial supplementary social benefits; the college with no formal provisions for old age income and survivors' benefits is falling far behind. Its staff members see these provisions being adopted all about them and must realize that in every purchase of goods or services they are helping to support social benefits for other workers without having any expectation of similar benefits for themselves or other members of their families.

A sound joint contributory retirement plan with the equities in the contract vesting in the participant will enable the college to part amicably with a staff member. It is common knowledge that circumstances arise wherein a professional college worker becomes dissatisfied for one reason or another and he would profit by a transfer. These situations develop with considerable frequency and, when they do, the presence of a plan for retirement income, so constructed that the individual may carry with him the whole of the provision for retirement income that would have been earned to date had service continued, facilitates substantially the separation. It may give the worker a new lease on life at another institution where he would otherwise be unwelcome because his comparatively advanced age would make him a retirement burden. On the other hand, if the participant forfeits part of his equity in a retirement income contract when he withdraws from service or transfers to another institution, then the forfeiture feature tends to freeze that individual in his present position.

SOUND PROVISIONS

Preceding paragraphs outlined what happened when a college operated without a retirement plan; this led to a summary of the advantages ob-

tained when a satisfactory plan was adopted which leads to the question, "What are the sound provisions for a faculty retirement plan?"

Participation

Participation in a retirement plan should be compulsory after a brief waiting period. When an institution inaugurates a retirement plan, it obligates its treasury for substantial contributions as an administrative aid in parting with superannuated staff members. When a college assumes this financial obligation, it should make sure that its purpose is not thwarted by particular individuals; in order to be sure of this, participation in the plan should be required.

If participation is voluntary, frequently the professor who elects not to join is just the one to reach retirement age destitute of provision for retirement income and the institution is placed in the disadvantageous position explained in earlier paragraphs.

Unfortunately, in past years voluntary plans have been established. It is encouraging to note that administrators who began with voluntary plans have become convinced by their own experiences that this arrangement is unsatisfactory. If the college is to justify its expenditure, participation should be compulsory.

Age of Retirement

A retirement program should state at what age retirement is to take place. This gives the administration an opportunity to announce to staff members of all ages that, unless special action is taken in individual cases, retirement is to be expected upon the attainment of a stated age. This does not mean that the services of an individual should be discontinued arbitrarily at the age decided upon without consideration of his value to the institution. It does mean, however, that each staff member should anticipate retirement after a certain age is attained rather than that he shall continue in service; he can then plan his life accordingly.

Contributions and Benefits

The practice of purchasing retirement benefits by contributions that are made monthly by both the faculty and the institution has, today, widespread acceptance in the colleges that have adopted retirement plans. These contributions are usually expressed as a percentage of monthly salary with

equal payments or larger amounts contributed by the college than by the faculty member.

This apportionment seems sensible because each contributor has a justifiable reason for the expenditure and the percentage arrangement, when applied to salary increases, is a convenient method of relating the retirement benefit to final salary.

The question of how to relate contributions and benefits is frequently raised. Should benefits be determined beforehand and the contributions be calculated to produce the benefits? At first thought there may be something in favor of the fixed benefit plan. Careful analysis, however, will show that between the beginning of contributions and retirement many things can happen to defeat the purpose of the fixed benefit: the annuitant may be compelled to reduce contributions, may wish to increase contributions, may decide to change the age at which annuity payments begin or may decide after some time that the fixed benefit is inadequate.

Nearly all institutions that act individually have chosen to fix contributions as a percentage of salary and let the benefits be what these contributions will purchase. When these contributions are calculated as a per cent of salary, the size of the benefit is related to the total amount contributed during the years of employment and the interest and mortality rates used. A premium of \$25 a month beginning at age 30 will at present purchase at age 65 a single life annuity of approximately \$100 per month. This is based on an interest rate of 2½ per cent, the 1937 Standard Mortality Table set back for conservative purposes and a small loading charge. Variation of these three factors will affect benefits as it does among insurance companies.

In past years when interest rates were higher, a monthly contribution of 5 per cent of salary matched by the college purchased satisfactory benefits; but in recent years the decline in interest earned, together with greater longevity of annuitants than had formerly been anticipated, has reduced benefits so that contributions of 7½ per cent matched have been adopted or are now under consideration in many institutions.

The foregoing comments apply to contributions to purchase future service benefits for retirement and would not be complete without a few

brief statements concerning past service benefits. Frequently, when a retirement plan is inaugurated the college administrator is confronted with the problem of adequacy for those older staff members whose future service is limited. To meet this problem the college often agrees to furnish a supplementary benefit in addition to the future service benefit jointly purchased.

It is important that these supplementary benefits be equitable as between staff members, that they balance to some degree with future benefits and that the gross cost to the college be a known amount. The virtues of equity, balance and a fixed liability can all be retained by a simple formula for the benefit: present salary times 1 per cent times years of service from age 30 and prior to effective date of plan.

A common practice is to use 1 per cent for past service benefits in a plan using a premium of 10 per cent with respect to future service benefits, and $1\frac{1}{2}$ or 2 per cent with a 15 per cent premium.

Various Important Provisions

Most college retirement plans are funded through a third party, usually a life insurance company. There are two sound reasons for this: (a) the premium paid becomes a part of invested funds supervised under state laws with the safety factor emphasized; (b) the insurance company takes all responsibility for the accounts, records and actuarial work and assumes responsibility for longevity when payment of the annuity begins to each participant.

When a retirement plan is funded through a life insurance company, individual contracts should be issued to and owned by individual participants. This fundamental principle has widespread acceptance in the field of higher education. Complete vesting in the annuitant permits the free exchange of educational talent devoid of any problem of forfeiture of equities

in the contract. In the event of death before retirement, the contract should provide periodic income to a named beneficiary.

Furthermore, because a retirement program is aimed at adequate retirement income, retirement annuity contracts should not provide lump sum cash surrender values or permit borrowing against the accumulations. All these features stress the social responsibility of colleges for retirement benefits for superannuated faculty.

Announcement of Plan

Because a college retirement program is of long duration and involves certain rights of both the participant and the institution, it is important that the details of the plan be embodied in a formal resolution approved by the board of trustees of the college. The resolution should be in the nature of a legislative document; its phraseology should define rights and obligations.

The actual inauguration of the retirement plan is a major step in the personnel policy of the institution and should be recognized as such by the administration. The chief administrator should take the precaution to explain fully the rights and privileges of the plan to each participant. Many administrators have found it helpful to supply each faculty member with a copy of the resolution accompanied by a carefully prepared explanation of the plan and also a description, set forth in nontechnical fashion, of the principal provisions of the retirement annuity contracts that will fund the accumulations for retirement income.

OPERATION

A retirement program, when once installed, is disarmingly simple to operate and questions rarely arise to warn college administrators that deficiencies in a plan may be growing. Many retirement plans, when inaugurated, meet objectives of the moment satisfactorily. Others, unfortunately, are necessary compromises with

expediency and are recognized by their authors as less than was desired. These thoughts lead to the warning that if a retirement plan is to continue to be of greatest possible value, it should be reviewed thoroughly at intervals of from three to five years.

Failure to correct unsound practices may be the cause of future trouble for the college administration. The points outlined in the check list on page 3 should be considered in any such review.

SUMMARY

The preceding paragraphs have attempted to outline the difficulties and problems created when the college administrator is complacent to the need of a sound retirement plan for faculty members.

A retirement program will enable the college administrator to attract new members to the staff, to part amicably with those who desire to move to other fields and to retire the superannuated teachers without embarrassment to the individual or to the institution.

A sound retirement program should fulfill the following stipulations:

1. Be a plan for retirement and for income after retirement.
2. Require participation after a brief waiting period.
3. Provide for a premium as a percentage of monthly salary apportioned between the participant and the college.
4. Provide for a past service benefit for the participants in the higher age group.
5. Be funded through a life insurance company and evidenced by a contract that is the property of the individual and that contains rights and privileges that fit the particular needs of college people.
6. Be set forth in a carefully prepared resolution approved by the governing board and fully explained to the faculty.
7. Be reviewed periodically at least every three or five years.

CUSTODIANS . . .

are necessary to the successful maintenance of college buildings. George H. Bush will tell in December how intelligently to organize and appraise the work of the custodial staff.

PITFALLS IN A UNIVERSITY *Press*

Read these four statements from officials of successful publishing ventures before you undertake this enterprise



HAVE YOU MONEY TO VENTURE?

ROLLIN D. HEMENS

Assistant Director, Publication Department
University of Chicago Press

THE UNIVERSITY PRESS IS GENERALLY thought of as a new enterprise. It is new in America. The oldest presses in this country were established in the early 1890's, but the greatest number has been founded since 1920.

However, publishing as a function of a university began soon after the invention of printing. The records show that around the year 1500 there were three university presses: one at Cambridge and one at Oxford and the third in the Vosges Mountains at the little monastic college of Saint-Dié.

ADMINISTRATIVE CONCERN

The problems of managing a press, therefore, are not new. However, as the number of presses has increased, a greater number of university administrators have been concerned, and as the publishing programs of the presses have grown from the issuance of a few books a year for a local market to the publication of many titles with worldwide distribution, the problems have become more involved and the decisions more important.

A few of the American presses are separate nonprofit corporations affiliated with a university. Among these are Princeton, North Carolina and Yale. The majority, however, are organized as a department of a university with all problems of operation eventually resting on the shoulders of the president or business manager.

Publishing is a commercial enterprise. It is likely to be the only one in a university; therefore, its administration presents problems that do not come within the usual pattern of busi-

ness management of the university's affairs. Publishing involves risks and every book issued must have venture money. An investment must be made in printing and publishing the title with the hope that the returns either in prestige to the university or in money income will substantiate the original judgment.

Careful appraisal of manuscripts and advance sampling of the market can reduce the risk, but the final decision must be based on about 30 per cent research and 70 per cent judgment. Research can reduce to a negligible number the publication of manuscripts of careless or bad scholarship. There is no way, however, to select with certainty among the good manuscripts.

Freedom to operate as a business can contribute to reducing the risks and to the probable success of the publishing activities. For example, the manager of the press in most cases should be able to purchase printing wherever he thinks it to the greatest advantage of his publishing program rather than be made to conform to a common university rule that all purchases be made through the purchasing agent and orders placed with the lowest bidder. It is desirable also that an adequate allowance be made for travel expenses and that there be freedom to travel to solicit manuscripts and to do personal selling.

Six of the American university presses own and operate their own printing plants; among them are California, Stanford and Oklahoma. The operation of a printing plant involves special problems of personnel, organ-

ization, labor laws and the like which do not face the majority of presses. Book publication is the one activity common to all 35 members of the Association of American University Presses.

It would appear to be axiomatic that the objectives of the publishing program be definitely stated, that is, that the university administration decide what it expects from its university press and make that known to the management. The financial requirements, the organization, the personnel and many other fundamentals in an efficient operation depend upon a clear understanding of the goal sought.

PURPOSES OF UNIVERSITY PRESS

It is assumed that the first purpose of the university press is extension of the university's educational activities through production and distribution of books and, in some cases, of journals. This may be limited to scholarly works written solely for scholars. It may include the presentation of the same information but written so that it will interest the nonspecialist and in that way contribute to the education of the average citizen. It may mean the publication of textbooks, making new methods of teaching generally available.

Over the long term, it is possible to operate a press at a profit, on a break-even basis or with a subsidy. The financial and publication policies are interdependent. The financial policy affects the selection of manuscripts to be published just as much as the selection of manuscripts determines the financial requirements. Book publication is expensive; therefore a press that limits its publication to scholarly works, written for a limited special market, no matter how great the contribution, can be operated only with a substantial subsidy.

It is imperative that the decision regarding policy be made on a long term basis. Books are planned months and often years in advance; in normal

times it takes something like six months to produce and publish a book after the manuscript has been released to the printer; moreover, it requires years to build a good list and a competent staff to publish successfully.

CONTRADICTIONARY OBJECTIVES

A second imperative is that the decision be made with complete agreement between the academic and the business officers of the university. It is confusing to all concerned and detrimental to the successful operation of the press to have a high ranking academic officer tell the faculty that the administration will consider the press most successful in those years when it loses the most money, when at the same time the business officer has asked the director to revise his budget to show a smaller loss or more profit, as the case may be. The interdependence of the publishing program and the financial requirements becomes increasingly clear as one examines the operations of a university press and analyzes its profit and loss statements.

The largest single item of cost is printing. This includes the cost of setting type, making plates, paper stock, presswork and binding. I have in mind a recent book which, if only 1000 copies are needed, would cost at the rate of about \$4 a copy, whereas if 10,000 can be printed at one time the cost would be from 90 cents to \$1 a copy.

If a press should publish only titles which sell fast enough that 5000, 10,000 or even more thousand copies can be printed at a time, the ratio of printing costs to receipts can average as low as 20 per cent. On the other hand, when the printings are as few as 500 or 1000 copies, the costs may be as high as 60 per cent of the receipts. Assuming a fairly diversified list, the average is likely to be between 30 and 40 per cent.

Authors' royalties are likely to average between 12 and 16 per cent of the receipts. Frequently no royalty will be paid on titles that sell less than a thousand copies. On the other hand, the rate of royalty is often increased after a title has had a sale of from 3000 to 5000 copies.

Editorial costs, like all others, vary from title to title and differ considerably from one press to another. These are the costs of procuring manuscripts, selecting those to be published and putting them in shape for release to the public. Editorial work requires



Pictured above is an exterior view of the building which houses the printing division of the widely known University of Chicago Press.

much time and expert judgment. Every university press receives a great many more manuscripts than it publishes.

The University of Chicago Press publishes about 50 books a year. These are selected from among 300 or 400 manuscripts. Each manuscript received must be considered with care by persons of more than average competence. Some manuscripts need only a hurried reading to reveal incompetence and these can be rejected forthwith. Many more appear to have promise and are sent to a specialist in the subject to get his expert opinion; occasionally this will mean three or more readings.

A few manuscripts will embody good ideas worthy of publication but poorly presented; weeks will frequently be spent with the author putting the material in shape for publication. The average cost of editorial work per manuscript published can easily average from \$400 to \$600. This may seem too much. However, the selection and preparation of manuscripts are the most important operations in publishing. The publishing activity succeeds or fails because of the books it publishes rather than because it does or does not spend large sums in advertising.

Selling expenses include the cost of space advertising, of personal solicitation of business, of direct mail promotion, sales correspondence and the like.

The cost will average from 15 to 20 per cent of the receipts from sales.

This cost is definitely affected by the nature of the list. If a press specializes, let us say, in college textbooks exclusively, its sales and advertising problems and expenses will be quite different from that of another press which goes into the trade, medical and reference markets.

Also, continuity in general subject matter has a direct effect on these expenses. For example, if a press publishes several books a year in economics, the cost of selling those books is less than if it should publish one book every third year. The university's rightful demand on its press means that the university press ordinarily publishes in numerous fields and for numerous markets. This is proper but should be given due consideration when establishing financial policies.

Publishing, like every other business, involves many operations for which the cost cannot be broken down. These include warehousing, billing, shipping, handling accounts receivable, record keeping for stock control and paying royalties and many others. The total costs may range from 15 to 30 per cent of receipts.

The press that publishes books which sell mainly single copies on an invoice is bound to have much higher costs than the press whose books sell in quantities of a hundred or so an invoice. At one time we analyzed our

accounts at Chicago. There were more than 3000 of them; 90 per cent of the accounts represented only 10 per cent of the year's volume; 10 per cent of the accounts represented 90 per cent of the dollar sales. That picture has improved greatly, but until the nature of our list is drastically changed we must count on a high cost ratio.

There appears to be no generally accepted policy as to inventory. Some university presses think there is a financial advantage in printing a maximum quantity of each title in order to get a low unit cost. Others work on the basis of smaller printings with the belief that that reduces the risk of overstock and gives a financial advantage in greater turnover.

In pricing inventory there are several methods of handling the cost of setting type and making plates. Some presses consider this an immediate expense and so their inventory price is based on the cost of paper, presswork and binding only. Others average it over the first printing and still others over an estimated total sale of the title. The fact that most university presses publish a large number of titles which sell in small quantities means that whatever the basis of pricing the turnover is small.

The operation of every business requires a certain minimum of legal

knowledge, plus access to good counsel in special fields. In operating a university press special attention needs to be given to the law of copyright, of libel and of contract. The rights and interests of the university and of the author must be protected not only in the original contract for publication but also in later contracts which may cover such things as publication of editions in foreign languages, digests and occasionally movie rights.

The American university presses have done their work well. The impact of their books in advancing scholarship and scientific research extends beyond national boundaries and can never be measured in dollars. In many places their work has been done with full understanding by the university administration that publishing is a business and it must be permitted to function as such and must be freed from certain routines so necessary to good administration of academic affairs.

America and American universities are assuming a position of ever increasing importance in world affairs. This means that the presses must be administered with even greater understanding if they are to fulfill their responsibility to the scholarship of the United States and to that of the rest of the world.

sity Press catalog, "in their content and presentation contribute to an understanding of human affairs whether in the arts or sciences."

LINES OF ORGANIZATION

To carry out these purposes, an organization should be set up along the following general lines: (1) trained business management to keep the organization functioning smoothly; (2) competent editorial judgment based on ability and experience; (3) skill and knowledge in manufacturing and design to produce the books efficiently; (4) sales and advertising techniques to handle distribution; (5) trained accounting experience for financial records and reports; (6) facilities for storing and shipping books.

A seventh division might be added in some institutions, namely, a printing plant, but this is not necessary with outside printers available and as it is a rather special problem we shall not consider it here.

Obviously a number of the foregoing functions can be directed by the same person. For example, the business manager could do his own work and if properly trained could handle either manufacturing, accounting or sales. Other combinations might be made, and in some rare cases the editor and business manager might be combined in the same person. However, since the over-all operations of a press fall into two general groups, the editorial and business sides, there is an advantage if these functions are directed by two individuals who work closely together, each understanding the other's problems and each checking the other's judgment. This, then, constitutes the active, professional group engaged in running the press.

There is also the board of directors, or whatever it may be called, which constitutes university control and is responsible for general policy. Since the press may well become one of the most widely known functions of the university, it is immensely important that the officers of the university should be strongly represented on its board of directors. Therefore, this board should be composed of all or most of the officers of the university, certain members of the faculty and alumni and the officers of the press.

The chairman of the directors, preferably an outstanding scholar of distinction and ability or an officer of the university, is frequently the titular



ENTHUSIASM IS NOT ENOUGH

NORMAN V. DONALDSON

Managing Director
Yale University Press

IN A NUMBER OF UNIVERSITIES AND colleges that have not yet established a press of their own, there seems to be a demand from various sources that no time should now be lost in setting up a publishing organization. The attitude reminds one of the man who when asked whether he could play the violin replied that he did not know because he had never tried.

First, let us realize that it takes a considerable amount of time and money to get a university press going and it takes trained personnel to run it. Publishing is a professional job and no amount of good will and enthusiasm can take the place of a thorough knowledge of the technics involved.

Because a distinguished scholar has written some books and has great respect for book publishing it does not follow that he is equipped to run a publishing house. Also, one must remember that if serious mistakes are made in editorial or business judgment the press may lose more money than it is expected to lose and may bring discredit rather than credit upon the institution.

What then, in brief, are the purposes of a university press? It seems to me there are two: (1) to serve as a publishing outlet for the best work of scholars on its own faculty and elsewhere and (2) to add distinction to the university by publishing books which, to quote from the Yale Univer-

head of the press at the institution.

The problem of financing may be met in a number of ways or a combination of ways. The important point to carry in mind is that sufficient capital should be available at the start to carry the press for a great many years, and a steady source of income should be guaranteed to meet the deficit on the actual business operations. By the very nature of the work which a university press is supposed to do, it cannot be expected to make money or even to meet its expenses without help.

METHODS OF FINANCING

The necessary capital may in some cases be raised by making an initial grant from university funds and then placing the press on an annual budget. If this plan is followed, it must be remembered that publishing of any magnitude and variety has its ups and downs and unlike a department of the university it is impossible to forecast the actual expenses for any given period. But if the press is on an annual grant under the budget system and is permitted to carry over any surplus from year to year, it should be able to operate within those limits if the grant is large enough.

Another method of partial financing is to make grants to the various departments to meet the cost of books brought out by the department through the press. Or the press may be endowed by some alumnus who has sufficient vision to see its great benefits to the university and who has sufficient capital to implement his vision. Another method of raising money is to obtain gifts which constitute publication funds, with the understanding that all books published on those funds are to carry a brief notice explaining the fund.

Just how large the initial outlay and the annual grant should be would depend, of course, upon the size of the press contemplated and whether, for example, it could be housed in some university building without rent. With these and other variables to consider, it is hard to give any estimate of the amount needed to start and operate a well run press, but it is probably safe to say that there should be no less than \$50,000 and perhaps some figure closer to \$100,000 available to begin with, and a further subsidy of from \$10,000 to \$15,000 a year to keep it running. As the income and profits from the sale of "back list"



books increase, the operations of the press can expand accordingly.

When we speak of financing or subsidizing the publication of a book we mean paying the so-called "manufacturing cost," i.e. all the expenses from the time the manuscript is finally approved and released for composition until the bound books are ready for distribution and sale.

If a book is published by the press at its own expense as a straight publishing venture, then the press, of course, pays the manufacturing cost, takes all returns from sales and pays a royalty to the author which usually begins with 10 per cent of the list price. If, however, the book is financed by departmental funds or by some organization or publication fund outside the press so that the press has no manufacturing cost, then the return to the department or fund may be 35 per cent of the list price on all sales.

Many proprietors who are financing publication of a book wonder why the publisher, who in such cases has no cost of manufacture—that is, who receives the books apparently free of charge—can pay back only 35 per cent of the list price on his sales. If you consider that discounts run from 20 per cent to 40 per cent, promotion costs about 7 per cent and publishing overhead about 20 per cent, you realize that with a 35 per cent return to the proprietor there is little left for the publisher's profit column.

The many different arrangements under which books may be published are complex and it is easy to run behind financially through lack of experience. One pressure which is ever present in all types of publishing is the constant urge to have the publisher overspend on promotion. This is because of the author's natural desire to see his book and his name publicized, and because everyone involved in the long process of publishing a book

makes more profit if the publisher overspends on his promotion.

For example, if a publisher spends \$1000 in advertising a \$3 book and as a result sells 500 more copies than would otherwise have been sold, he has lost about \$800 on the operation, but everyone else in the picture has benefited. The author has made more in royalties, the printer and binder have produced more copies, the magazines, newspapers and advertising agency have sold more space, the commission salesmen have taken more orders and the jobber and bookseller have sold more books. At the end of the line stands the harassed publisher holding the bag and paying the bill.

DANGER OF OVERPRINTING

There is also the yawning pitfall of overprinting to reduce the unit cost so that the list price of the book may be low enough to make it available to the huge public the author has in mind.

These are but samples of the way a press can lose money through lack of experience, but such matters can without question be met and solved if the press is staffed with trained people who know the ins and outs of publishing. Therefore, the chief consideration in founding a press is the problem of setting up a professionally trained organization which, as I have already said, takes a great deal of time and money.

In some cases when a university is not ready to set up its own publishing facilities, arrangements may be made for one of the established university presses to do the publishing under a combined imprint. This plan has worked with satisfaction in a number of instances and may well be considered as an alternative.

In most instances, the question of starting a university press is apparently premature and based on no specific information as to just what is involved. Usually the answer should, I believe, be in the negative unless the institution has made a detailed study of the problem with the aid of professional advisers and has a guarantee of ample funds.

In conclusion, I can only emphasize to those in other universities and colleges who are now contemplating the establishment of a university press that university publishing is no easy road. I have tried here to set up a small "Stop, Look and Listen" sign and to blow the whistle for the crossing.



WHAT WOULD YOU PUBLISH?

SAVOIE LOTTINVILLE

Director
University of Oklahoma Press

SHALL WE ESTABLISH A UNIVERSITY press? How should it be organized? How much will it cost?

These questions and many more show up regularly on the desks of university press managers in many of our institutions each year. For my part, I have never been able to answer them satisfactorily within the limits of a letter or questionnaire, hence this article.

The first question is a proper one for the interested institution to ask of itself. It becomes more workable, however, if it is put in the form, How great is the need? All too often the answer is given partly on the basis of assumption, partly in terms of the prestige that is presumed to flow from the publication of scholarly research.

SOURCE OF MANUSCRIPTS

The assumption is that a great many faculty members either have or will have book-length manuscripts that could be published by the university press, should it be created. Experience shows, however, that, save for universities of the greatest size, individual faculties do not produce enough publishable manuscripts, year in and year out, to sustain a press from that source alone.

Examination of the current list of almost any American university press will reveal this condition in practical terms. Authors are drawn from other institutions, from the ranks of lay scholars and from men in public life. Books by home faculty members are, often as not, in the minority.

Implicit in this assumption, too, is the thought that the creation of a press will offer an "outlet," perhaps the only feasible one, for the research of the faculty in question. This is an insecure foundation upon which to erect so large an undertaking as a university press. A publishing program must be conceived in positive terms. The institutional press that dedicates itself to the publication of books "that can't be published anywhere else" is not likely to survive the initial enthusiasm of its

sponsors or its first publications.

The question is, rather: What specifically do we have to offer that no one else has undertaken or to which no other press has done justice? There are many answers: regional exploration; the pre-eminence of the home faculty in one or more fields of literature, history or science; a program of investigation in agriculture or industry; a need in the social sciences or the humanities; one or more well conceived series.

Successful presses have been built upon specific plans, and they have gained momentum and prestige from their ability to create well diversified lists, with considerable strength in at least one field and often in several. The problem is closely analogous to that which is met in the development of a new department or school. A definite objective is needed unless the creation is to be merely another appendage to the academic institution.

When the new press makes the inevitable discovery that a yearly list cannot be sustained by the productions of the home faculty, it discovers also that scholarly publishing, like the commercial kind, is quite competitive. There are now 35 university and college presses. Collectively they publish 500 book length works of scholarship each year.

It follows without saying that, great as is the scholarly output of our faculties and graduate students, manuscripts of genuine distinction are hardly more plentiful than the combined lists of university presses will indicate. Contrary to a widely held opinion, manuscripts of the most publishable kind do not flow in unsolicited; they must be sought.

I have given a frank appraisal of these problems because I know that they will have to be faced, even as all of us who have been in the business for some time have had to face them. But money, which apparently opens all doors, must be faced frontally, too.

At the outset let me say that scholarly publishing is no inexpensive en-

terprise. If a book costs a mere \$2500 to manufacture, it will surely cost a round \$5000 to publish when all costs are counted (as they should be) for editorial work, design, sales promotion, advertising, accounting and royalties. The figures are hypothetical, of course, but they are symptomatic of the spread between prime manufacture and everything else that goes into publishing.

Presses have been started on a shoestring—indeed, most of them have been—but the margin of safety is in the length of the shoestring. When money is needed, will the institutional treasury provide it? How much can be expected from sales?

PLAN FOR FIRST YEAR

If I were starting a new press, I would plan to publish not more than five books the first year. As a minimum, I would require a budget of \$25,000, but I would feel a great deal more certain of the outcome on \$35,000.

If sales income the first year were \$10,000, all sponsors would be entitled to feel happy; if it were \$20,000, they could be pretty sure that something phenomenal had happened. In ten years, I should expect the press to be from two thirds to three fourths self supporting on an annual budget of \$65,000 to \$100,000. Anything beyond that gets into the realm of big business, though there are presses in this country whose annual operations run high into the six figures.

No institution can expect its scholarly press to be completely self supporting. A press may break even in good years, or occasionally make money, but if it does so consistently, it is not publishing the kind of scholarship to which its parent institution is presumably dedicated. I say this because scholarly books, while definitely merchantable, are not merchandise. Although the word "contribution" is used loosely even by scholars, it remains that a university's contribution to humanity is, at its best, immeasurably more important than the cash books are likely to show.

The organization required for the advancement of the purposes I have discussed always comes last in my thinking, simply because a salient objective and the financial means with which to accomplish it come first. Whether a press is to operate under the supervision of one or more boards of control, whether as a department of the university or college directly



Savoie Lottinville, director of the University of Oklahoma Press, has a conference with members of his staff. Reading from left to right are Florence T. Minner, secretary; Mary E. Stith, assistant editor; Will Ransom, art editor; L. J. Carrel, sales manager; Mr. Lottinville; Van Buren Endicott, superintendent of the printing division; Myrtle Lancey, service manager; George R. Huckaby, assistant superintendent of the printing division.

under the president, or as an auxiliary enterprise apparently makes little difference. The important factors are the quality of the staff and the vision of the board of control.

As to staff, the first and most obvious need is for a manager or director. I am not going to blueprint him, but basically he must be capable of adapting himself to all types of scholarly inquiry. He ought to have some business instincts at least, know a little about the mechanics of printing and be willing to learn a great deal more, feel at home in time at the business of promotion and be willing to work more than forty hours a week. He cannot achieve the institution's purposes on a part time basis, that much is certain.

A combination sales manager and accountant is needed the first year. As soon as business gets well under way,

he can devote himself to sales and business management, leaving the accounting to full time employees hired for that purpose.

If the director is lucky, as well as hard working, he may be able to do most of the required editing during the first months of the new press. Thereafter he will need a full time editorial assistant and, in time, several.

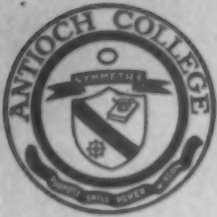
Even with a list of no more than 10 books a year, a press needs a production man who is also a book and jacket designer, and this job is not for an amateur.

These people—a director, sales manager, editor, accountants, production chief—together with half a dozen secretaries will see the enterprise well on its feet—and the university committed to an annual pay roll of some \$30,000.

All of this has to do with publishing only; printing is another matter. But progress will be much easier, and costs much less, if the contemplated publishing program has the benefit of an institutional printing plant already in operation.

College and university press publishing is here to stay. In the last twenty years it has grown phenomenally, not only because of institutional needs, but also because of the demand by the public for soundly written, enduring books.

Just how much farther this expansion movement can be carried remains to be seen. A great deal depends upon the kind of job that is done by schools, colleges, and universities in developing a population of serious book readers. The university comes first, the press afterward—not the other way round!



IF WE WERE STARTING TODAY

J. H. HORNER

Bursar
Antioch College

THE GREAT UNIVERSITY PRESSES HAVE in many ways taken their place alongside the commercial book publishing companies. But many smaller colleges for one reason or another have a press connected with them.

Antioch College, a cooperative work-study college with just under a thousand students, began the Antioch Press about the same time it instituted the work-study plan, 25 years ago. Although today Antioch students go off campus every other three months to "cooperative jobs" with businesses, industrial plants and professional organizations across half of America, the original idea was that students should spend their work periods on jobs in closely surrounding communities or in various small businesses which might be brought to Yellow Springs. The Antioch Press was such a business.

Originally, the college was only a part owner. Several individuals, mostly connected with the college, owned

stock, too. Two or three students each year got basic printing experience as regular workers for regular pay. The Antioch Press did all the college printing, some job press work outside and a number of finely printed books.

Today the college owns 100 per cent interest in the press, and three fourths of the press's \$40,000 annual business is college printing or printing for organizations affiliated with the college, such as the Fels Research Institute on human development.

The Antioch Press is separately incorporated, partly to keep the non-profit nature of the college itself beyond question and also to enable employees to benefit from social security regulations, as employees of educational institutions do not. Only occasionally do students hold jobs at the press, then they are usually secretarial or proofreading in nature.

The advantage during the war of having a press set up to do college work instead of having to persuade

this or that company to accept the jobs individually was obvious daily. In unusual times, the special services given by a press which puts college work first and of an alert manager who keeps college needs foremost in his mind and is willing to go to any trouble to obtain supplies and to persuade college officials to be forehanded in their planning are invaluable.

As to price, a periodic check about once every five years is made on the Antioch Press costs as compared to bids submitted by large job printing establishments for the work. The press prices are in general about the same, although they are arrived at on a basis of costs rather than speculative bids. The college does not plan to make a profit on the press, since it would mostly be taking money out of one pocket to put it into another.

As to educational function, the press serves as an excellent training ground for future printing executives whenever someone interested in this field turns up in the student body. The press does not, however, function primarily for this purpose. Its manager emphasizes the fact that all shop people are professional printers, feeling that one must choose between turning out good printing and training young people in print shop technics.



A further advantage of the college press is that the relationship between printer and "customer" can be more that of partners. The printer does not have to follow blindly an obviously poor layout to keep the customer's business but can make suggestions from his technical experience and the two parties can work together to evolve simple and attractive formats.

Some of the work the Antioch Press does in a year would include: 45,000 thirty-two page picture bulletins; 16,000 college catalogs; some 500,000 four page leaflets; four issues of the *Antioch Review*, a liberal national

quarterly edited by a group of Antioch faculty; a weekly college newspaper, and all incidental printing of letterheads, stickers and forms for the registrar's office.

But the Antioch Press is also a publisher of books. It has published some 12 titles in the last ten years. These include technical books by Antioch faculty members, some poetry, some books of special market appropriately handled by a small publisher. Titles include: "Representative Bureaucracy: An Interpretation of the British Civil Service," J. Donald Kingsley; "Towards an Objective Ethics," George

R. Geiger; "Executive Ability: Its Discovery and Development," Glen U. Cleeton and Charles W. Mason; "The Symbolism of Music," Dwight L. Bolinger.

Book publishing continues to be a minor part of the press work, however, because it has discovered no feasible way to promote the books widely enough. Marketing is now done through direct mail and advertising in special, usually scholarly, publications.

The Antioch Press's contribution to the establishment of the *Antioch Review* should also be noted. The *Review*, a socio-economic quarterly and a worthwhile scholarly venture, was made possible only because the Antioch Press was willing to produce it, in its infant years, at the cost of the direct labor and materials. Thus it was partially subsidized by the Antioch Press until its circulation could be built up enough to pay its own full way. The press, in turn, was able to do this because at the time the *Review* was first launched (1941), the press had some empty hours to fill.

The existence of a college press is not without its problems and the "empty hours" brings up one of them. When the print shop must always handle college work at all times first, it is handicapped in taking outside work. It cannot pledge to have the outside jobs done at a specific time. This puts a similar responsibility on the college to plan its printing work carefully through the year, so that there will be a fairly even flow.

Another problem is that Antioch's is a letterpress print shop only. The college is limited in the printing techniques it can use by what is available in a fairly small shop.

What for the future then? Should the shop get bigger? Antioch sees no particular reason why it should become involved in operating a big job printing shop. Publishing books would, however, seem to be an appropriate activity for a college and would be a logical area for expansion.

In summary, if Antioch were deciding today: To start or not to start a print shop, it possibly might not do so. But with an excellent print shop already under way and in its control, it realizes the extraordinary boost to quality of printing the close collaboration of press and college makes for, and its immeasurable advantage in being freed of the necessity to shop around and dicker for printing work.



In picture at left, Freeman Champney, manager of the Antioch Press, fills out an employer's report card on a student whose co-operative job was proofreading and office work. Most jobs, however, are in New York, Chicago, Detroit, Georgia and points between. In picture below, Brad Johnson and Irwin Inman discuss a problem of make-up.



HOW TO BUY EQUIPMENT FOR VISUAL AIDS

PAUL WENDT, LELAND BAUCK and JAMES F. NICKERSON

Respectively, Director of Visual Education Service and Senior Audio-Visual Engineer, University of Minnesota, and from the University of Kansas College of Education

PURCHASE OF VISUAL EDUCATION equipment calls for intelligent appraisal of all factors involved. Some suggestions are submitted herewith.

TYPES OF PROJECTORS

Slide Projector, 3½" by 4"

This projector handles 3½ by 4 inch glass or celluloid slides for projection on a screen under a variety of light conditions.

Slide Projector, 2" by 2"

This newer projector handles 2 by 2 inch glass or cardboard mounted slides.

Film Strip Projector

This small compact projector handles a filmstrip from 12 to 48 inches in length, usually containing from 15 to 50 or more pictures in sequence.

Opaque Projector

This projector is designed to reflect light from a photograph, print or other object or material by a series of mirrors through a lens to the screen. It demands a very dark room.

Microfilm Projector

Present microprojection machines are designed to give a relatively small (18 by 18 inches) reflected projection on a ground glass plate of pages of a book, musical score or pictures from long rolls of 35 mm. film containing a sequence of such prints or pictures. A microprojector similar to a film-strip projector, equipped to project these large rolls of 35 mm. film on a large screen, would be helpful.

Silent Motion Picture Projector

A film being projected is given a rapid intermittent motion as it passes the light in the machine and consequently this motion appears to be continuous on the screen. "Silent speed" is 16 frames a second.

Sound Motion Picture Projector

This film has a sound track which makes possible the accompaniment of commentary, natural sounds, sound effects and music. The projector is similar to the silent motion picture projector but has the additional apparatus needed to produce sound from the track on the film. "Sound speed" of photography, sound track recording and projection is 24 frames a second.

Combination Projectors

Many projectors combine the features of two or more of the foregoing types either through design or by special attachment. Separate projectors are recommended, in practically all instances, to provide maximum flexibility at about the same cost.

ANALYSIS OF NEEDS IN 16 MM. PROJECTION

Type of Operation Desired

1. Classroom Viewings: If this increasingly popular type of projection is best for your system, special attention must be given to portability of projector; speed of setup and breakdown of equipment; sound quality and room acoustics; picture brilliance and room darkness; emergency repair by the operator; blackout facilities, and the type of screen.

2. Special Visual Aids Room: If this is the immediate answer for your system, special attention can be given to picture quality, high fidelity of sound, silent and sound speeds and other special features; screen type adapted to the specific room, and acoustical treatment of the room. A special visual aids room may serve as a useful substitute until classrooms can be equipped properly.

Number of Projectors

1. For Systems or Building Units With One Projector Only: If there is but a single projector, special attention should be given to such features as having both sound and silent

speeds in the one projector, dependability, public address and phonograph adaptation and speed of repair and service.

2. For Systems or Building Units With Two or More Projectors: The features previously indicated are not so important with two or more different projectors. Owning two or more types of machines will permit adaptation to any special needs you may have.

Operating Personnel

1. Student or Teacher Operators: If your system uses student or teacher operators, special attention should be given to portability of equipment, simplicity of operation procedure and ease in training students and teachers for operation and minor maintenance.

2. Special Operators: With an operator-specialist, simplicity and trainability are of less importance and other salient features for your setup may be stressed. In most situations, teacher or student operators will be more satisfactory.

FEATURES TO CONSIDER IN 16 MM. EQUIPMENT

Dependability

1. Good service and repair history for a given make of projector in operation over a period of time.

2. Projector permanently mounted within a rugged carrying case or properly constructed to eliminate operating noise if not in a case.

3. Protection of film against damage by scratching and tearing while projector is in operation.

Portability

1. Minimum of weight in one or two cases.

2. Small, compact cases for the projector and speaker.

Simplicity of Operation

1. Speed of Setup and Breakdown: Reel arms and belts should be attached or readily attached. In threading, film gate and sprocket shoes should be easy to clean and regulate. The pilot light should be sufficient to aid in threading film in a darkened room. A line indicator or other means to indicate the film path is required, as is a regulator or line indicator showing the correct length of loops in film.

For focus and framing, a simple and stable elevation adjustment for projector case is needed, as are a

frame line adjustment and a sensitive but rigid control for lens focus.

All switches and controls should be readily accessible to the operator and easily identified in a darkened room.

2. **Ease in Training Student or Teacher:** An adequate manual of directions is needed. The projector should be simple in design.

Picture Quality and Brilliance

1. **Maximum Brilliance:** This permits operation under a wide variety of light conditions. A visual comparison can be made by setting two projectors side by side and projecting on adjacent parts of the same flat white screen. All other conditions must be equal.

2. **Uniform field, free from bright spots and shadows.**

3. **Sharp focus over entire area of picture.** (A Society of Motion Picture Engineers picture test reel provides ideal targets for testing.)

4. **Steady picture free from jittering.** (Any film framed so that the frame line is visible on the screen will help differentiate between jitter resulting from poor photography and that from poor projector work.)

Quality of Sound

1. **Clear, intelligible sound free from noticeable distortion at normal operating level.**

2. **Tone control to permit adjustment of tonal balance to the acoustical conditions of different rooms.**

3. **Good tonal balance between "highs" and "lows" with tone control on normal or high fidelity position.**

4. **Sufficient amplifier and speaker output to fill without distortion the largest room in which the projector will be used.** (There is an SMPE sound test reel available. It includes a buzz track for checking the position of the scanning beam, tones of various frequencies from 50 cycles to 6000 cycles for checking the adjustment of the sound optical system and the range of reproduction, male and female voices for checking intelligibility, piano music for checking clarity of reproduction and freedom from waver, and symphony music for checking range of reproduction and volume handling capacity.)

Maintenance

1. **Use of standardized replacement parts should be easily obtained.**

2. **Minor replacements should be easily made. Easily accessible projec-**

tion and exciter lamps, fuses and belts are recommended. Needed, too, is an emergency operation and repair kit containing extra projection lamp, fuses, belts, small tools and oil.

3. **Adequate service and checkup facilities for the projector should be available in your territory. Service should be provided "on call." Major repairs should be of reasonable cost and availability, and the manufacturer should have a regular service policy including checkup of equipment at certain intervals to anticipate and prevent interruptions in operation.**

Cost

The cost is essentially the same for all makes of 16 mm. motion picture projectors of good quality. If a sales representative offers equipment at much less than the usual price for such equipment, it is likely that the service rendered thereafter will be meager simply because he has given away part of the money required to pay the cost of adequate service. This service is more important in the long run than a small difference in the initial cost of the projector.

Other Features

1. **Sound and Silent Speed:** Older silent films (16 frames a second) can be shown at sound speed (24 frames a second) but the action is speeded up. If silent films are to be shown, both speeds are desirable. If both sound and silent films are to be used regularly, it will be more satisfactory to have a separate projector for each type of film. Few films are being produced today at 16 frames a second so the need for silent speed is gradually disappearing.

2. **Reverse and Stop-on-Film:** Reverse and stop-on-film facilities on silent projectors will have some value in the editing of school produced films but will be of little value in the projection of motion pictures before class groups. If a motion picture is constructed properly, it should be projected in motion. If still pictures are required, it will be much more economical to acquire filmstrips and appropriate projection equipment.

In the case of sound motion pictures, provisions for stop-on-film and reverse not only are unnecessary but complicate the projector mechanism without serving any good purpose. These features have been eliminated on a number of models of sound projectors and could be on others.

3. **Lens Assortment:** Different projection conditions demand lenses of different focal lengths. Investigate your needs for average use and for any special use you may have for the projector and order lenses according to lens tables generally available.

4. **Public Address and Phonograph Use:** This is sometimes advantageous and the special equipment—microphone and phonograph pickup—must be matched to the amplifier.

Screens

There are three common types of screens: beaded, matte-white and silver and each serves a somewhat different purpose.

1. **Beaded Screens:** The beaded screen consists of a great number of very small glass beads impregnated on the surface of the screen. The beaded screen gives greater intensity of illumination within a narrow angle of view (12 degrees) on either side of the projector beam. Beaded screens should not be handled too roughly or some beads may be scraped off the surface of the screen.

2. **Matte-White Screens:** The matte-white screen gives less illumination than does a beaded screen when viewed near the line of the projection beam, but it gives a brighter picture than does the beaded screen at angles exceeding 24 degrees at either side of the projector beam. Since most classrooms are so designed that many students sit farther than 24 degrees from the projector beam, that is, in the two front corners of the room, the matte-white screen is generally more useful for all these locations. Some users consider matte-white screens to be more accurate in color rendition. Matte-white screens can be cleaned with screen cleaning materials or soap and water, but care must be taken not to leave streaks.

3. **Silver Screens:** The silver screen has a metallic paint surface. In intensity of illumination it is between the beaded screen and the matte-white screen; it is brighter than the matte-white screen up to an angle of approximately 24 degrees from the projector beam. Silver screens have largely dropped out of use because they tend to crack and wrinkle if used on the now popular screen rollers.

4. **Screen Stands:** At present, the portable roller screen is a practical answer for general classroom purposes but eventually a screen will be permanent equipment in every classroom.

On the Move

GOUCHER COLLEGE

JOHN C. B. MOORE

Moore and Hutchins, Architects
New York City

**The past remains in Baltimore.
Only its traditions will be found
on the new 421 acre campus
of beautiful, rolling country**

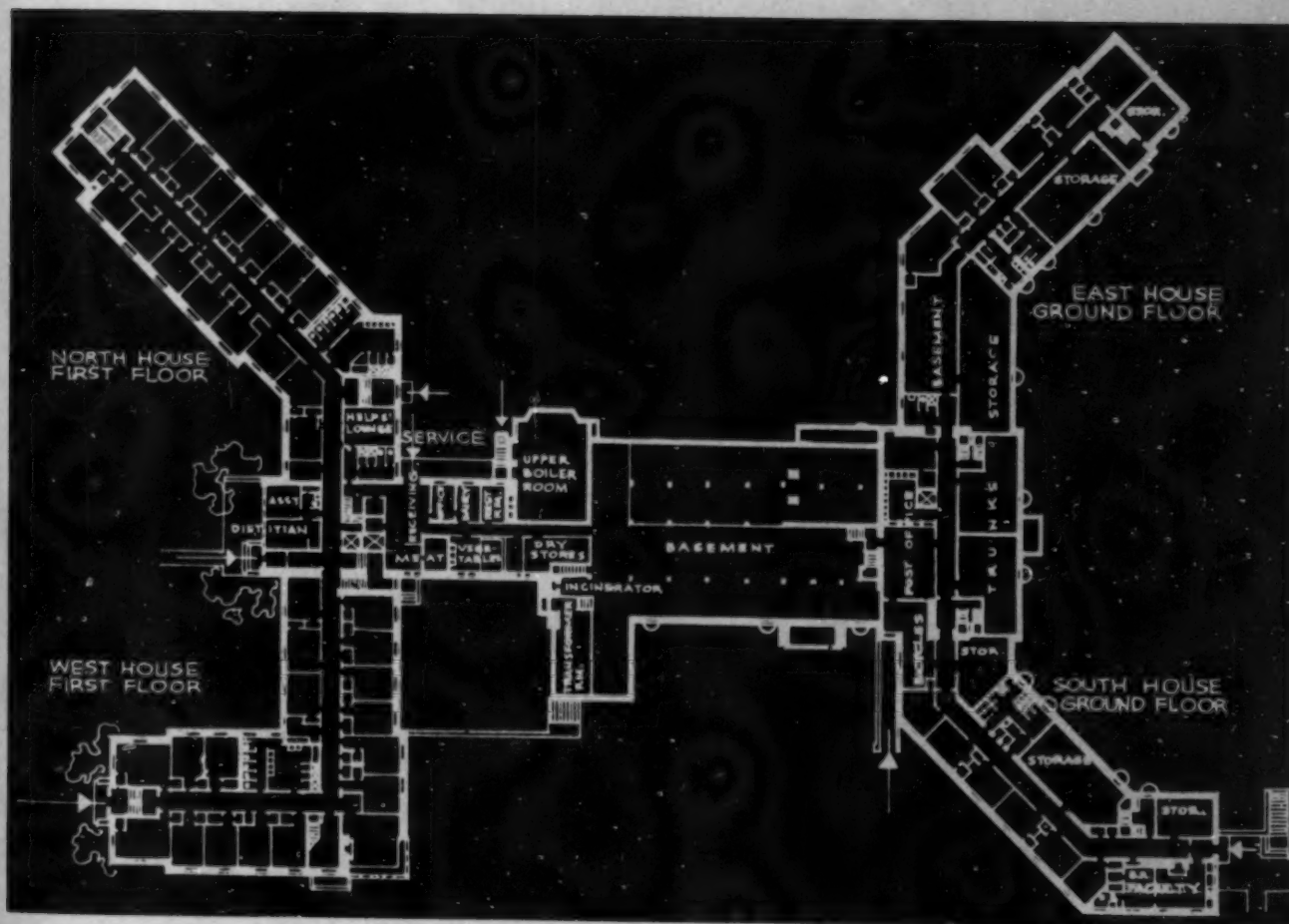
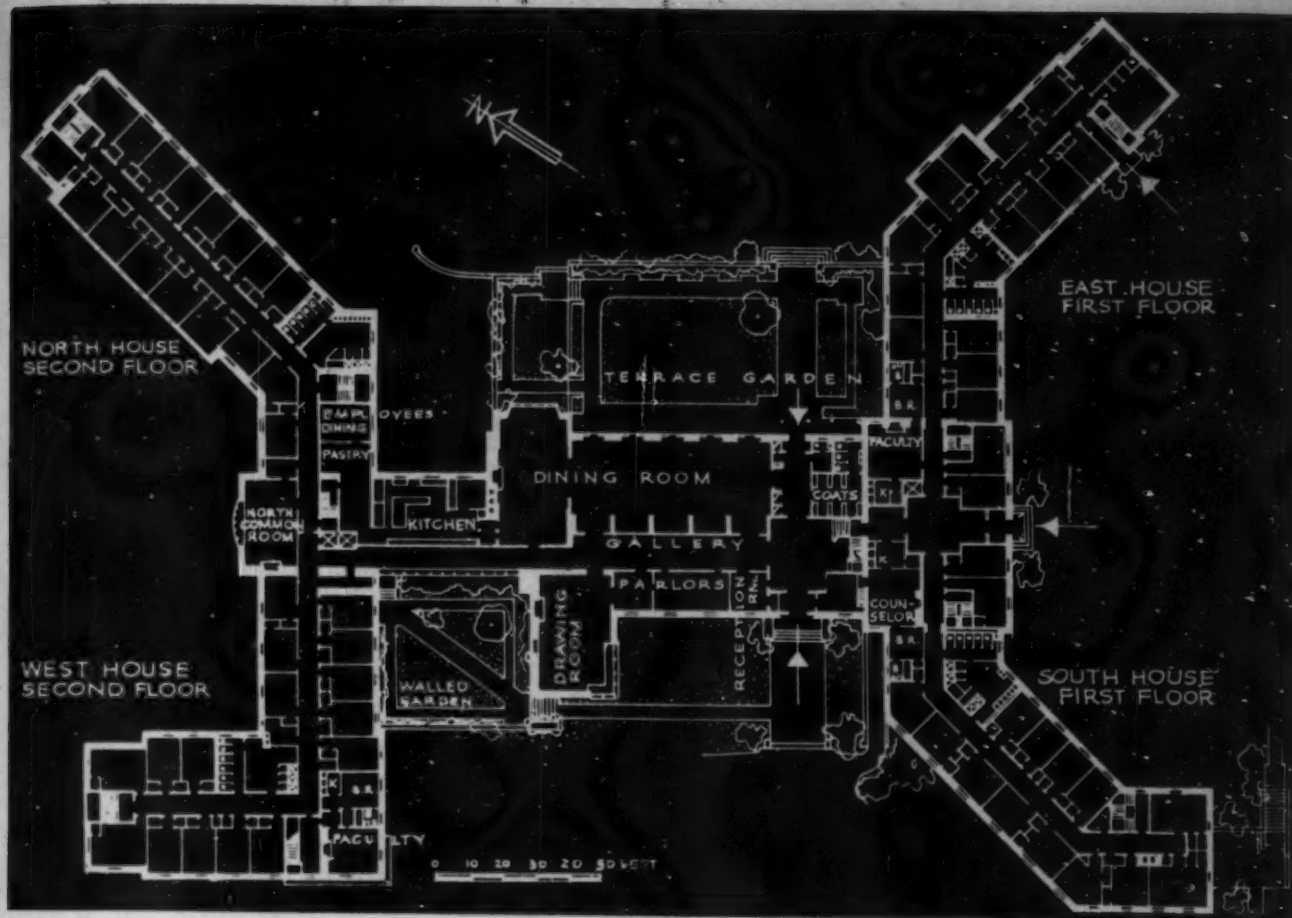
GOUCHER IS A LIBERAL ARTS COLLEGE for girls, founded more than half a century ago in the city of Baltimore. Students now number more than 600 of whom about 300 are resident.

Instituted by the Baltimore Conference of the Methodist Episcopal Church, the college inherits traditions and acknowledges indebtedness to the past. Nevertheless, its objectives are of the present and its aims look toward the future as it starts its second fifty year period.

The educational program of the college is conceived in terms of the life activities of the American woman of today and tomorrow. Understanding of the development of the civilized world, of the methods and achievements of science, of the demands of family, group and community responsibilities and of the means of communication in English and other languages assists in relating the individual student to contemporary life.

Training in habits of physical and mental health, in the use of resources







1.



2.



3.

1. Gracious living is personified in the setting provided by the Common Room of Mary Fisher Hall. 2. The exterior is local field stone which harmonizes with the local scene and with the design as demonstrated by the handsome entrance. 3. The dining room, too, has an air of spaciousness. 4. The comfortable parlors are conducive to happy social relationships. 5. Lights and shadows dramatize the hallway leading to the entrance foyer of the building.



4.



5.

with good taste and economy, in the enjoyment of literature, music and the other arts and in appreciation of religious and philosophical values provides the individual with a background for normal and happy living. The development of initiative and a sense of responsibility in applying such understanding and training is fundamental in the program of the college.

The foregoing objectives set the keynote for the college building program.

The present college buildings are located in urban Baltimore. Some of these have dignity and charm but most of them are antiquated. Moreover, adequate space for the growth of the institution and for pleasant surroundings for the residents and provision for athletic facilities are totally lacking. Realizing the need for a background for more ample academic life, the college long ago acquired a 421 acre tract of beautiful rolling land in Baltimore County, near the county seat of Towson.

SELECT ARCHITECT BY COMPETITION

On the occasion of the fiftieth anniversary of its founding, the college held a national competition to select an architect to prepare a general plan for the development of the new campus and to design one principal building. The requirements were set down in a program of extraordinary scope and breadth. Thirty-five solutions were submitted, varying in spirit and in style.

The plan which received first prize was selected for its respect of the natural beauties of the site and for the interrelation, according to their proper functions, of the various component parts of the institution including the library, flanked on one side by science buildings and on the other side by buildings for humanities and social studies. Together these constitute a single academic group, the central element of the campus.

Closely related to the academic group was the group of residence halls and, at the junction between the two, the chapel and the college union. At the point of contact with the public arriving from without were placed the auditorium and the administration building. On the periphery, taking advantage of slopes, exposures and views, were located the president's house, faculty house and, in another quadrant, the playing fields and gymnasium.

Thus the winning submission provided a comprehensive master plan for the development of the college on its new campus. It had been anticipated that the architect selected would need to revise his thoughts in the light of further familiarity with the requirements of the college but this did not prove to be true. The competitive plan was adopted without change and was commended for its imaginative interpretation of the needs of a growing academic community.

Especially significant was the flexibility inherent in the plan which permits the gradual development of the campus step by step, unhampered by considerations of formality or uncompleted symmetry. This flexibility in broad principle and in detail of building plan became of prime importance at the moment when the construction of the first building was to be undertaken.

Sufficient funds were not available to construct the entire first building as originally planned, but it was possible to launch the project and begin a major portion of the building without fear of unfortunate functional or esthetic results. Before the building was enclosed, it was possible to add two more wings and complete the original design.

The first building to be completed was a residence hall for 180 girls, greatly relieving the congestion in antiquated dormitories in the city and providing a substantial number of resident students with the advantages of

living in the pleasant and spacious environment of the campus. Although patiently undertaken and cheerfully endured by faculty and students alike, transportation of these students by bus and streetcar to and from classrooms, laboratories and library still located in Baltimore has been a major administrative task through the years since 1942. It is hoped that this situation soon will be eliminated.

SURVEY OTHER WOMEN'S COLLEGES

Before planning the first residence hall, the college authorized the architects to visit and report on residence halls of women's colleges built in the period between 1920 and 1939. These were examined not only for plan arrangement and administrative efficiency but also for the types of facilities thought most conducive to furthering the educational aims of the particular institutions and to stimulating happy social relationships among the students and the staff members.

Particular attention was paid to the relative advantages of large units easy to administer and of small units more readily fostering pleasant contacts and high academic standards. The findings of the architects were assembled in a table published in *Pencil Points*, July 1943.

Mary Fisher Hall was the result of this investigation and of further development of a detailed program through constant close contact between President Robertson and his faculty planning committee on the one hand



A residence hall was the first unit completed in the campus plan that won first prize in a national competition conducted by Goucher College.

and the architects on the other. A building was devised with a central block containing entrance, offices, general social rooms, recreation room, library, guest suite, director's suite, dining room, kitchen and service facilities, jointly serving all 180 residents and large enough for administrative efficiency.

USE RADIAL DESIGN

Radiating from the central block are four wings or houses, each for about 45 girls, largely occupying single rooms. Each house is under the general oversight of a resident member of the faculty and each is provided with a common room as a center of the social activities of the house. A considerable spirit of house loyalty develops, yet these loyalties are merged in the larger unit when all come together for meals and daily social functions in ample quarters.

The material of construction of the building is local field stone of beautiful color and texture. The plan makes free use of modern principles of design and at the same time harmonizes with the local scene. Interior furnishings were provided by the architects in closest harmony with the design.

So successful has this building been that a second residence hall is now being planned identical with the first except for some minor practical features and the provision of more so-called "double-single" rooms which have proved exceptionally popular in the first building and which provide for pairing of two students in adjacent

single rooms having one common entry. This new building will provide for most of the resident students now enrolled. A third such building will increase the resident capacity of the college.

Most important requirements for the new campus after the second residence hall are the library and the first classroom building. President Robertson has had special experience in planning university and college libraries. He and his faculty planning committee have elaborated on a program for the library, setting forth principles and general objectives in broad terms and then proceeding to detailed specifications in conformity with those principles, yet leaving the architects completely free to explore various types of physical arrangements. In this respect the program for the library and the competition program for the general plan are both models of clear thinking.

The library will have open stacks, accessible to all students, with general supervision and guidance at a central desk. Large reading rooms and large reserved book areas will be eliminated and the entire book collection will be housed in a continuous long area or band of stacks, two tiers high, lying parallel to and serving a continuous series of reading areas equal in length to the stacks. Stacks are planned on a modular system and can be rearranged at will. Carrells will be provided on an upper level.

The reading areas with stacks will be subdivided into subject areas by means of easily movable partitions

which will permit assignment and re-assignment of reading areas according to requirements. One hundred per cent increase in book capacity and reasonable expansion of reading areas will be provided for but indefinite growth is not contemplated since the college does not need to provide the facilities of a university library.

CENTRALIZE LIBRARY OPERATIONS

Central in the library will be the desk, the catalog, a reference room, the librarian's office and the library service rooms. On an upper level will be special rooms and library conference rooms, faculty offices and several small classrooms. At the extremities of the two wings the library will be connected with the science and humanities buildings from which students can directly enter the reading areas appropriate to these two broad subject groups.

This, briefly, is the program for a new library building which has exciting potentialities. Detailed plans are now being rapidly developed and funds have been allocated for construction as soon as it can be wisely undertaken.

A humanities building also is being planned which will contain classrooms, conference room and offices. Funds for this building have been pledged by the alumnae.

Substantial progress is thus being made toward the establishment of Goucher on its new campus in an ample and dignified setting appropriate to its heritage and to its distinctive academic progress.



LET'S DESIGN FOR *Today's America*

LAWRENCE B. PERKINS

Perkins and Will, Architects
Chicago

YOU DOUBTLESS RECALL PLATO'S suggestion that supreme fitness not only is the precondition of beauty but also may be the substance. I am sure you have found Plato sound in this connection. For instance, you must have always felt that an undeniably pretty girl in a chiffon dress was ridiculous on a canoe trip in the north woods as was her sister in boots and leather jacket at a formal party.

And where do Plato and pretty girls tie in with the architecture of college buildings? In many places, I hope. At the moment, we are suggesting the analogy between the inappropriate chiffon dress and the equally inappropriate battlements which will never be defended, shutters which will never be shut, cloisters which will never keep away the world and colonnades which will never bring back the powdered wigs and knee breeches they are designed to recall.

The overhanging battlement of the medieval chateau or schloss was a utilitarian fixture when one wanted to pour hot melted lead on one's neighbors. The slit-like gallery windows were admirable for parrying arrows on them. Each of these details, therefore, had its useful, functional, engineering reason for being: To permit the occupants to live according to the social usages of the time.

This kind of reception is now considered unfriendly and it is some time since centers of learning could be so defended. The battlement has become to universities what the appendix is in the daily life of the American citizen—a fine cultural conversation piece but otherwise useless.

When our polite and gracious ancestors were members of a privileged minority which went about in stock collars and silken hose and enjoyed access to a few books, they read them in rooms heated by fireplaces, lighted by windows with small panes of hand-blown glass, protected from envious

visitors by shutters, lighted with whale-oil lamps and filled with the paraphernalia now found in antique shops. Each of these elements of lighting and heating and the other comforts of civilized living have been improved upon and made available to a far wider group than the 1 or 2 per cent for whom they were developed.

Williamsburg is immeasurably valuable as a museum exhibit, but college campuses do not have the function of providing a museum piece for a bygone civilization. Aren't they to train people in the art and science of living today? To the extent that setting is an instrument toward these objectives, shouldn't we be as consistent as former civilizations were in meeting the necessities and realities which gave life to the forms about which we have just been writing?

AUDITORIUMS

The job of an auditorium is to provide a comfortable place where people can see and hear. The design should be governed by the number of people who need this facility and the money available. Gothic pinnacles on the exterior of the building can be a direct cause of discomfort not only to visiting parachutists but to the occupants inside the building whose knee room and upholstered comfort have been deflected into external matters of appearance.

The design, after all, is a series of choices and judgments of relative importance unless money is so unlimited that nothing need be sacrificed. A room where 2000 people can see and hear a speaker, where their feet are warm and their bodies surrounded by fresh, cool air, where the seat does not obtrude its hard corners into their consciousness will, by its very shape and size, give cause

and reason to architectural forms which will need no embellishment to be beautiful, provided the materials, setting and landscaping are adequate. All of us have had experience with auditoriums that take at least George Bernard Shaw to fill them, whereas a lesser lecturer might impart some pretty valuable stuff to an audience not preoccupied with its legs going to sleep. If Plato is right, the building will be more beautiful anyway.

GYMNASIUMS

The gymnasium is frequently the best piece of architecture on an entire campus because its very size and scale and vigor are so powerful they break through any attempt to disguise and overlay them with limiting forms. The big spans and the big windows express to the world the use of the building: It is a big box of air designed to house a space consuming athletic event and the people there to watch it.

The idiom of past styles which is applied to small scale buildings is usually powerless to hamper the vigor of this giant. It is not our province to comment on the fact that this facility is charged against physical education and is, in fact, used for the exploitation of a few muscular young men. The architectural solution of a problem in physical education for an entire student body is not difficult in the least—it is an administrative problem to say what is wanted and to sell it to alumni who prefer winning teams.

LIVING FACILITIES

How many colleges depend upon their sororities and fraternities to furnish social recreation? What about the students who do not "make" the Greeks? Must they spend their time at the movies? Wouldn't it be better for them to have somewhere to sit in front of an open fire after a strenuous skate around the local ice rink? And we do not mean a place such as

the well known dormitory living room!

And speaking of dormitories, why do they all seem to have yellowish cream colored walls? Yes, we've heard all of those arguments. It's a practical color which doesn't show soil; wouldn't it be better if it did show dirt so those responsible would be more inclined to keep the walls clean? It is a neutral color which will blend with any color scheme the student may adopt; wouldn't any student welcome a color which would add to instead of just blending with her color scheme? And wouldn't she like a color that was different from every other room in the building; it would certainly help to do away with the awful monotony of dormitory rooms. And why must woodwork be dark and, again, "practical"? Maybe it doesn't show finger marks but how many college students eat bread and jam?

How many dormitories have facilities for laundry? Or hair drying? Or dating? "Date parlors," as they now stand, are places for men to wait while their dates put on their hats. Is there a law which says they mustn't be homelike and comfortable and places where people might be inclined to spend a few minutes?

Again, it is not our province to suggest what problems should be solved but merely the method of their solution. It is the administrators' problem to say there should be this or that facility. The architectural expression of a dormitory built around the premise of comfortable living with light, air, sunshine, ventilation and generally pleasant social conditions is a problem which can be solved if clearly stated. Its solution probably will not be in terms of monastic cells with romantic but dark courtyards or Georgian barracks with rows of shuttered windows. An example of current thinking in this field is the recent Smith College dormitory competition which is worth a second, third and fourth look.

CLASSROOMS

Well, now we have criticized everything about the average college except the thing for which it exists: its academic function. Actually, teaching is not within our province but providing the adequate and appropriate facilities is. We know that an instructor cannot be at his best with jittery nerves from the constant noise in many classrooms, but how many rooms are acoustically treated? And how many times does

the student in the back row of a lecture hall miss half of what is said at the front of the room? And how many times does the same student fail to see pictures, charts or blackboard notes? Is this fair to the student? Or to the instructor?

Proper acoustical provisions and adequate lighting would raise marks, improve tempers, cut down on student-faculty conferences over lack of understanding and most certainly make life pleasanter for everyone concerned. Well, if it's that simple, why isn't it done?

LIBRARIES

The job of a library is quite simple: It is to provide a place where books can be stored, found readily, read and returned. The end product is information reaching students' minds readily, systematically, under conditions pleasant enough that they will absorb that to which they are exposed and convenient enough that this service will not place an undue burden of cost on the university operating the library.

Nowhere in this stated purpose do you find any suggestion that the student feel that he is living in the time of Francis Bacon or Thomas Jefferson. He won't stay fooled permanently, anyway. Nor yet is there any rule that says the library should look like a railroad terminal. The thing which will give architectural expression to the building is and should be the direct result of enclosing book stacks and providing convenient, pleasant places to read those books.

A FEW NOTES ABOUT SYMMETRY

Beware of symmetry. The cases are incredibly rare in which the departments to be housed in a building and their need for further expansion and the nature of their activities add up to precisely offsetting qualities. The more general rule leads to situations where a photographic darkroom is offset against an art studio. One has too much light, the other too little. Symmetry is a form of balance, to be sure, the simplest, but by no means the only one.

PLANNING

The sternest and most functionally minded modernist can take no exception to the pleasing picture of college students strolling under the immortal elms past ivy-covered walls in an atmosphere permeated with tradition. It is a lovely picture and, of

course, we want the members of our younger generation to realize and appreciate their kinship with early America, to say nothing of medieval monks.

But we also want them to realize their identity with and responsibility to today's America. We want them to work in surroundings that will inspire them to constantly improved solutions to the problems they will meet after college. If this means providing them with buildings fitted to the needs of teaching and if these buildings do not duplicate the ones around them, it is not necessarily regrettable. Harmony is no more dependent on duplication than balance is limited to symmetry. Growth and change are far more real and fundamental. No statically predetermined plan can be wise enough and farsighted enough to provide in detail for the entire future.

All of which is no excuse for not engaging in campus planning with all possible vigor at the level where it can be effective, the policy level. The elements of a plan should include the open areas which are reserved, the vistas which are chosen and the materials which should be predetermined and adhered to. Within such a framework the idiom of building can change from generation to generation or from century to century and still achieve a masterpiece of harmony, such as Canterbury Cathedral which was built by 20 generations of men working in styles ranging from early Norman to late Gothic and achieving not only a page of history but a thrillingly satisfying composition.

Similarly, in a university near where I am writing there have been five campus plans in less than that many generations and, in detail, each one of them has been junked but, because the essential framework of open areas, trees, lawns, lake and building material was preserved, the buildings which bear little stylistic relation to one another are becoming welded into an increasingly satisfactory esthetic whole.

In the design of each classroom or each dormitory room in detail, as well as in the campus as a whole, we suggest the yardstick question: Precisely what is to be accomplished by this element in the college? What is the simplest, most direct and most economical way in which it may be accomplished?

Then do it that way.

**Logic and wisdom
are evident in Mar-
shall's new building:
It satisfies present
needs; it will be
ready for the future**

THE NEW MARSHALL COLLEGE DINING hall, opened June 3, was completed at an approximate cost of \$260,000, including equipment but exclusive of plans. Through farsighted planning which will permit doubling its capacity, the new building is expected to accommodate not only present crowds but any load which may be placed upon it by anticipated future increases in enrollment.

A two story building of motley colored brick, 93 by 143 feet, the building is absolutely fireproof as the only wood used in its construction is that in the doors. The spacious kitchen has a food preparation center 72 by 23 feet and the scullery room is 17 by 30 feet. The serving area, 16 by 60 feet, separates the kitchen from the dining room which has a seating capacity of 400. Adjoining the main dining room are a private dining room, 12 by 19 feet, with a seating capacity of 18 and a comfortably equipped lounge of similar size.

In the basement, which is half above the ground, the area corresponding to that occupied on the first floor by the kitchen is devoted to storage, employees' dressing rooms and the boiler room. Below the serving space and the main dining room on the first floor is a large area planned to be used for recreation. Should the enrollment increase to a point which would require the expansion of the dining room facilities, however, a shaft has been provided for a dumb-waiter so that with it and the freight elevator the dining room accommodations can be exactly duplicated in size, making it possible to serve 800 in the two main dining rooms at one time.

The interior partitions of the building have a wainscoting of buff ceramic glazed tile 4 feet high and the walls above, of cinder blocks laid



COLLEGE DINING HALL

ELIZABETH A. SMITH

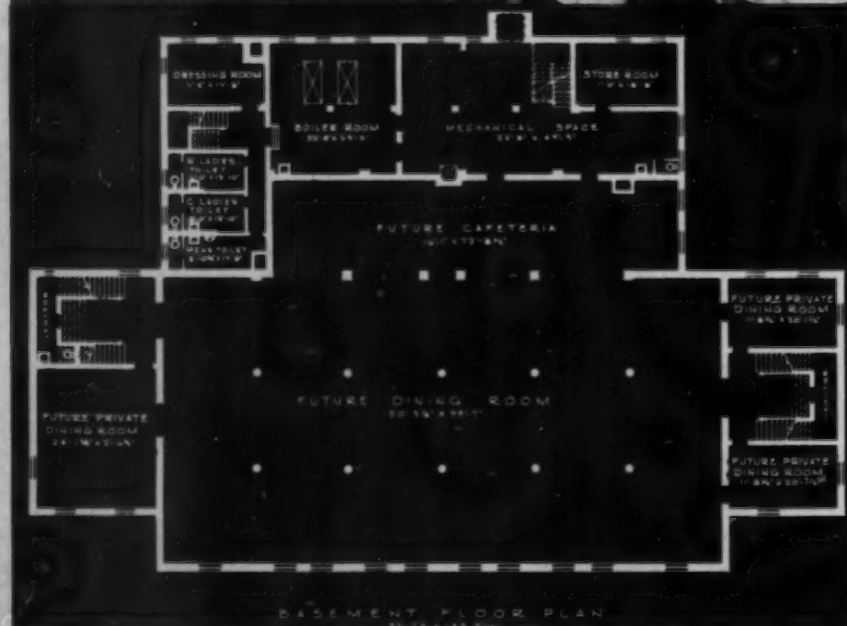
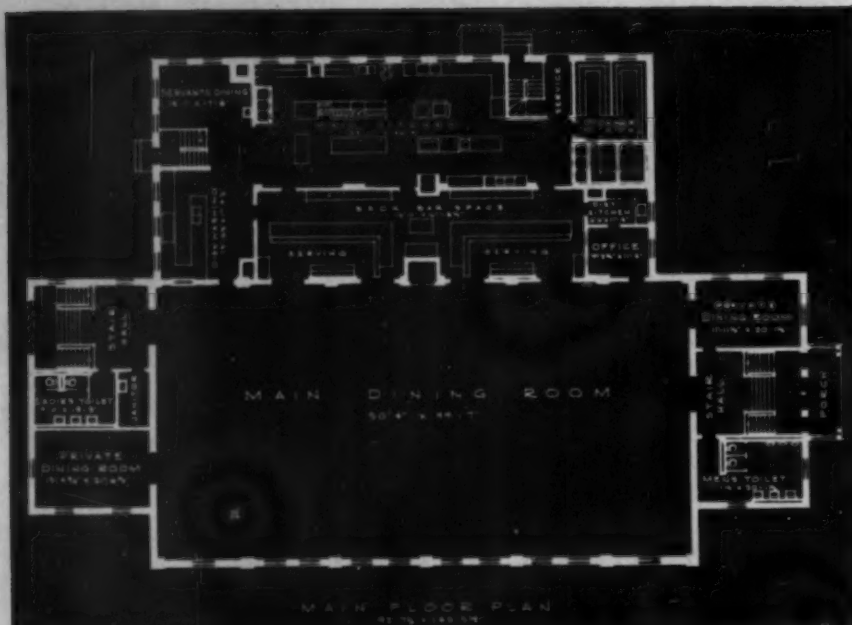
Head Dietitian
Marshall College, Huntington, W. Va.

in regular course ashlar, are painted a delicate green. The oyster-white arched ceiling has acoustical panels in a light ivory tint. Door casings and other metal trimmings are in teal green. This color scheme has been followed throughout the finished rooms of the building.

The kitchen, serving space and storage rooms, however, are all buff unglazed tile to the coved ceiling which is finished in oyster-white enamel. Stair wells, stairs, stair halls, office and basement flooring are of asphalt tile. The main dining room, lounge, private dining room and serving space are floored with terrazzo and the kitchen, refrigerator and storage rooms, with buff quarry tile.

The kitchen work areas, serving space and basement recreation room are illuminated by fluorescent lighting fixtures. The main and private dining rooms have indirect incandescent fixtures with large reflecting domes in the high ceiling of the main dining room.

The building is heated by steam from two gas fired steel boilers with unit ventilators which afford a continuous flow of fresh warm air throughout the winter months. A large ventilating fan over the hood ventilates the kitchen and another smaller fan has been placed over the serving area. Although there is no summer air conditioning in the main dining room, the air is changed ap-



proximately every ten minutes by direct fans beneath open windows.

The kitchen equipment is made largely of stainless steel in an exceptionally efficient arrangement. There are two large walk-in refrigerators, one ample salad refrigerator and one general purpose refrigerator. The equipment also includes natural gas fired ranges; a compartment steamer; two large steam-jacketed kettles, one tilt and one stationary; a bank of electric ovens; two electric grills, and an electric meat saw. There is adequate working space for each department of food preparation, with a fully automatic dishwasher in the scullery room.

Another service feature is the freight elevator which is so arranged that it picks up freight from the loading platform at an intermediate level and serves either the kitchen floor or the basement storage rooms directly.

The private office of the dietitian is located at one end of the serving space and is separated from it by a glass wall. The office connects directly with the main dining room and, through the adjacent laundry room, with the serving area and the kitchen so that all of the working space can be readily supervised.

The serving space is equipped with two identical ell-shaped stainless steel counters. After obtaining his tray and silver, the guest selects his salad from among those displayed on shaved ice. At the steam table he has a choice of two or three types of meat and of three or four hot vegetables in addition to potatoes. Passing down the line he finds five or six types of desserts on glass display shelves; if none of these is to his liking, he may always choose ice cream. He is next offered his preference from four beverages. The cashier at the end of the cafeteria line collects coupons from student meal-ticket books and charges other customers for their food à la carte.

Like many another college, Marshall has found the wartime expedient of cafeteria service more advantageous than its previous table service from the standpoint of numbers which can be readily accommodated, speed of service and the satisfaction that guests derive from selecting their own food.

The original project, prepared by Meanor and Handloser, was completed by L. D. Schmidt, architect.

Dormitory RATES ARE RISING

EUGENE B. ELLIOTT

Superintendent of Public Instruction for Michigan

A PROBABLE RISE IN DORMITORY rates for the second semester of the current college year is in prospect in Michigan if food, operation and maintenance costs continue to go up.

The Michigan Department of Public Instruction last summer asked the six public colleges and universities in the state to give certain data on proposed rises in dormitory rates based upon increased cost of food and lodging over the previous college year.

As may be seen by the accompanying table, dormitory rates advanced from 7.0 to 13.4 per cent with the opening of the fall term, reflecting a raw food increase variously estimated at between 5.4 and 18.7 per cent and an operating and maintenance increase of between 5.0 and 15.6 per cent over the previous year.

cent weeks, it will be necessary to increase this rate further."

"It is too early to estimate what effect the abolishment of O.P.A. ceiling prices may have, but most guesses seem to be that on the average the cost of food will go up another 10 to 20 per cent. If this is the case, it may be necessary to make a further adjustment in our charges."

"Our costs have soared since O.P.A. went off on June 30, and we are not at all sure that we shall be able to carry out our intention throughout the coming year of operating on the basis of prices indicated in our answer."

"We have had an increase in pay roll of approximately 12 per cent for the coming year, a factor taken into consideration in computing our costs."

"The cost of food reflects only man-

000 this year by building dormitories to meet current housing needs. No legislative appropriations are involved. Therefore, the colleges are much concerned that their dormitories be operated on a sound financial basis. The evidence submitted by the institutions reveals that the colleges have not increased their dormitory rates to meet that important financial obligation.

The colleges have experienced marked increased costs in labor. They report that the prevailing rates for construction labor influence the rates paid for services connected with dormitory maintenance and operation.

LESS STUDENT HELP AVAILABLE

Fewer students have shown an interest in working on a part time basis. It has been necessary for colleges to replace the part time workers by full time employees, which causes an increased cost of operation since the hours of full time employees are difficult to adjust to peak loads.

One college reports that next year it will absorb in its budget a \$125,000 loss because of the maintenance of a bus line that is used for transporting veterans from a housing project to the campus.

The charges for living in a dormitory on one campus are less than the charges for obtaining comparable living accommodations in a federal housing project used by the same college. This evidence is not intended to reflect in any way upon the administration of the housing project but rather to present some evidence relating to the efficiency with which college residences are operated on reasonable service charges.

Since June 30, the rise in food prices has created a serious problem to the college administrators. During the year 1945-46, the food costs represented approximately 55 per cent of the total dormitory expense. If food costs continue to rise, colleges will find it necessary to increase dormitory rates reasonably soon.

Increased Costs of Dormitory Service in Six Colleges and Universities in Michigan Between June 30, 1945, and July 1, 1946

Food and Lodging	Increase Per Cent
Actual increase in cost of raw food served in dormitories.....	5.4-18.7
Actual increase in dormitory operation and maintenance, including labor.....	5.0-15.6
Proposed increase in dormitory rates beginning with fall term, 1946.....	7.0-13.4

According to the evidence submitted by these colleges and universities, the proposed increased rates for board and room for the first semester of 1946-47 reflect actual increased costs in food, labor and maintenance of the dormitories.

During the period June 30, 1945, through June 30, 1946, the general increase in charges was absorbed by the college budgets; thus students have been saved approximately \$50,000. It is anticipated that charges for board and room for 1946-47 will need to be adjusted upward again to meet increased costs since July 1.

The following statements illustrate the type of problems described by colleges:

"If food prices continue to increase at the same rate that they have in re-

power costs, raw food costs and minimum operation costs on equipment and utilities. A chief concern has been the high cost of labor."

There seems to be a close relationship between the cost of living as compiled by the Michigan State Department of Labor and the actual increased costs reported by colleges in the different geographical areas. In light of the evidence submitted, a lag exists between the charges that colleges are making and the actual increase in costs for food, operation and maintenance. In other words, the appropriations by the legislature could not take into account the current increased costs that the colleges have found necessary to absorb.

The six colleges and universities are assuming an obligation of \$30,000,-

GIFT PROGRAMS

FOR PUBLIC HIGHER EDUCATION

Private gifts to publicly controlled colleges and universities are on the increase. These institutions should be dramatizing their many needs before all potential donors

ROBEN J. MAASKE

President, Eastern Oregon College of Education

SINCE EARLY TIMES IN THE UNITED States when John Harvard willed his library and half his fortune for a "school or college," higher educational institutions have received gifts and grants from denominational groups, individuals, foundations, alumni, organizations and various societies.

The extent of this support has been especially marked in the history of privately controlled higher educational institutions. For these institutions since 1920, the proportion of their total educational and general income from philanthropic sources is estimated at approximately one fourth to one third. The recent trend, though gradual, has been definitely in the direction of increased amounts of gifts to publicly controlled higher institutions.

This article is concerned primarily with the circumstances prevailing prior to the impact of World War II since the changes and trends during that period are not definitely discernible or interpretable as yet.

COSTS TO RISE SHARPLY

The expenditures for higher education in the United States will inevitably increase rather sharply in the years ahead. In 1929-30, expenditures for all institutions of higher education, privately and publicly controlled, amounted to \$377,903,377. In the succeeding decade to 1939-40, this sum had risen to \$521,989,757, based on 1609 reporting institutions. By 1941-42, based on 1628 institutions reporting, the cost of educational and general expenditures for all higher educational institutions rose to \$572,465,437.

Some idea of the growth in number of students is indicated by the fact that in 1889-90 there were only 156,756 students enrolled in all colleges and universities. In 1941-42,

this figure had reached 1,403,990 which was a slight recession in the United States from the peak figure of 1,494,203 in 1939-40. The proportion of the total population of college age who will attend college will unquestionably continue to increase.

The 1940 U. S. census reveals that only 4.6 per cent of all persons 25 years of age and older, who reported their educational attainment, were college graduates. The percentage varies from a low of 2.3 per cent and 2.9 per cent, respectively, in Arkansas and Alabama to 6.8 per cent in California and 11.1 per cent in the District of Columbia. That this percentage of college graduates in the total population will rise sharply in the next decade is beyond question. With it will come corollary increasing costs.

For all higher institutions, public and private, the sources of income in 1939-40, the year prior to the impact of the cumulating forces of World War II, were as follows: private gifts and grants, 7.1 per cent; student fees, 35.1 per cent; endowment earnings, 12.5 per cent; state government, 26.5 per cent; federal government, 6.8 per cent; local municipal government, 4.3 per cent; sales and services, 5.7 per cent, and miscellaneous, 2 per cent.

Organizations for conducting gift programs have been operating after a fashion since the establishment of higher educational institutions. Among the first effectively organized annual alumni fund organizations for the purpose of stimulating gifts, however,

General acknowledgment for various data used in this article is made to the U. S. Office of Education for the recent issues of Biennial Survey of Education, Statistics of Higher Education, and to J. Harold Goldthorpe, Higher Education, Philanthropy and Federal Tax Exemptions, American Council on Education Studies, Series V, No. 7, Volume VIII, May 1944.

were those effected at Yale in 1890 and at Dartmouth and Amherst in 1906. By 1941-42, one third of the alumni of Yale was contributing as was three fifths of Dartmouth alumni.

The continuous campaign for gifts in behalf of privately controlled institutions is necessarily considered a highly important phase of the total institutional program. Without gifts, few such institutions could survive. It usually becomes a prime function of the president or designated functionaries to devote considerable time to this enterprise.

Gifts or grants sought customarily fall into the following categories: (1) endowments; (2) annual pledges for current operation; (3) gifts for specified capital outlay purposes, such as college buildings, memorials, dormitories and stadiums; (4) gifts for loan funds, scholarships, equipment, library resources and instructional services; (5) gifts for research or experimental projects; (6) gifts or bequests for discretionary use at the option of the president or board of trustees, and (7) outright gifts of book collections, art collections, painting, sculpture and museum pieces.

GIFTS FOR CURRENT USE INCREASE

A total of \$40,452,846 in gifts for current or undesignated purposes was made to all higher educational institutions in 1939-40 which represented an increase of 9.6 per cent over the amount reported in 1937-38. In 1941-42, this amount had increased to \$45,916,372, or 13.5 per cent more than in 1939-40. Included in this total is a substantial amount accounted for by nonsalaried service of Roman Catholic Church functionaries.

As would be expected the bulk of this was reported by privately supported institutions. It is interesting,

however, to note that private gifts and grants reported by publicly controlled institutions increased from \$5,111,424 in 1939-40 to \$8,123,899 in 1941-42, owing largely, perhaps, to favorable tax laws for individuals and corporations in the higher income brackets.

The current impression prevails rather strongly among the general lay public that state or municipally supported colleges and universities are reasonably adequately provided for through regular appropriations of public tax funds. The corollary impression is equally strong that private, and especially denominational, institutions are in continuous need of financial assistance. Consequently, one who thinks of making a gift will normally turn his attention primarily to the latter group.

ORGANIZED PROGRAMS DEVELOP

Only in fairly recent years have publicly controlled colleges and universities directed their attention to organized programs for procuring gifts. In the main, the programs have been alumni sponsored and have not been too well organized, nor have pressures been exerted comparable to those in campaigns or programs conducted by most privately controlled colleges and universities.

Publicly controlled colleges and universities have a real opportunity to make their status clear to potential donors. While state or other public tax support will normally provide for their minimum requirements, there are many needs for which tax funds either cannot be appropriately sought or can be only meagerly provided. It could be made clear that gifts are not a substitute for taxpayers' obligations but a distinguished and highly important public service designed to meet more adequately the needs of college age youths. As a result of such gifts, these young people will be enabled to express their gratitude later through future constructive service as contributing citizens.

It could well be clarified, also, that there are many needs and services for which tax funds are frequently not available, for example, scholarships for worthy and needy students, loan funds, financial grants for special experimental projects, needed research, endowed professorships of very high caliber and similar purposes. In varying degrees, the extent to which these services and aids are adequately

provided for is dependent upon the generosity of thoughtful alumni and elder citizens.

Some of the larger state universities have inaugurated fairly extensive gift programs through an alumni organization, through a separate alumni foundation or corporation or through an independent corporation or committee composed of both alumni and other interested citizens. In most instances, the organization has issued a pamphlet or brochure picturing as graphically as possible the particular felt needs of the institution and offering suggestions for the placement of gifts and bequests which would enhance its potential services.

Such brochures customarily contain information regarding the services of various departments of the institution, its specific needs, legal forms for bequests and suggestions on methods for gifts and grants. They are attractively done and elaborately illustrated. Small publicly supported colleges have been



slow to inaugurate such gift programs and publications.

A brochure emanating from one small college* is somewhat typical of the contents of such gift brochures. It contains a foreword descriptive of the functions served by the institution, suggests an approach to the purpose of gifts to the institution, indicates in some detail various types of appropriate gifts and bequests, includes a treatment of "giving and taxes" and a section on "legal forms for gifts and bequests"; this copy is appropriately interspersed with quotations of general appeal to prospective donors and with etchings of possible memorials and projected buildings.

*Maaske, R. J.: Investing in the Future of Eastern Oregon: Suggestions for Gifts and Bequests. La Grande, Ore.: Eastern Oregon College of Education. 1943.

In presenting the case of private gifts and bequests, publicly controlled institutions might well emphasize the following points: (1) the contributions made by the institution to the public welfare and their potential enhancement if additional funds for certain special purposes were made available; (2) the potential development of special services of unique character if specified gift funds were available; (3) the assistance possible for worthy and needy, well qualified students through provision of more adequate scholarships and loan funds; (4) possible memorials designed to lend beauty to the campus, such as chime towers which could serve the dual purpose of student appreciation and the donor's tribute to a relative or distinguished citizen, and (5) potential services in the development of effective leaders to deal with the wide range of problems within a state or area if special funds were available.

GIFT SOURCE HAS HIGH POTENTIAL

Some indication of the potential source of private gifts to educational institutions is revealed by the fact that during the period 1934-39, four fifths of persons with annual incomes exceeding \$5000. reported no contributions to any educational or charitable institution. Federal and state fiscal policy seems destined also to encourage the making of gifts, especially among persons in the higher income brackets. It remains for publicly controlled institutions to place their respective cases properly and interestingly before these potential donors some of whom are, one might venture to say, prepared and even willing to make gifts provided they are impressed with the needs and convinced of the desirability of contributing.

In summary, the following trends appear to be emerging:

1. The total benefactions to publicly supported universities and colleges show a gradual increase.
2. The percentage of total benefactions to all higher educational institutions in the United States indicates that the proportionate contributions to institutions decreased in the East, increased in the Middle West and South and showed fluctuating but rising tendencies in the West.
3. There is a fairly definite shift of gifts from permanent or endowment funds to gifts specified for current operation and special services,

with a corresponding decrease in income realized from endowments.

4. The proportion of the total institutional benefactions going to privately controlled institutions consistently declined in the two decades preceding World War II, whereas relative funds going to publicly controlled institutions materially increased.

5. Philanthropic foundations have accounted for a substantial part of the gifts to all institutions but current federal and state taxing policies may prevent the future growth in numbers of such foundations.

6. A slowly increasing number of publicly controlled institutions are initiating well organized programs for

stimulating institutional gifts and bequests.

7. A few private and public universities and colleges are experimenting with the operation of allied or related commercial enterprises, recognizing that the annual profit from such an operation is equivalent to the income from a substantial endowment.

CONTROL OF STUDENT FUNDS

WILLIAM A. BODDEN

Treasurer and Controller
Smith College

EXTRACURRICULAR ACTIVITIES AND STUDENT FUNCTIONS have educational merits only; their financial operation is, in itself, a part of the education of students charged with handling the funds of such activities.

Affairs are run by students for students and any supervisor should be careful to do nothing that might in any way lessen the initiative, ambition and resourcefulness of the students. The staff member charged with the responsibility of working with these groups should be purely an advisory and counseling officer.

RECORDS

The records maintained by student groups should be simple and easy to keep. At the same time they should give complete information and should provide the basis for preparing periodic reports. It stands to reason that most student treasurers are not accountants or bookkeepers; consequently, the records they are required to keep should be of such nature that the average student of normal intelligence can do a reasonable job and properly account for the funds entrusted to his care.

Normally, the records required include cash receipts, cash disbursements, a check book, vouchers or purchase order forms. No attempt should be made to maintain a double entry system of books.

TRUST RELATIONSHIPS

An important function of the financial adviser is to emphasize to the students in charge of the activities that they are, in reality, trust officers acting for their fellows. As such they have the responsibility of administering and spending the money so as to ensure that those who are providing the funds will receive full value.

REPORTS

It is advisable to publish an annual report showing the financial activities of all student groups. This report serves two purposes. If it has general distribution among student groups, and it should have, it informs those contributing funds where the money was spent and for what purposes; it also tells future officers what has gone on in the past and this information is of great help in activities which have little, if any, continuity. This report also gives treasurers of these organizations and others financially responsible a "clean bill of health" to which they are entitled.

It seems logical that report headings should give the name of the organization and possibly an explanation of what the group is, the name of the treasurer and the period covered. Furthermore, the report should give the answer to two questions: Who got the money? What was it for?

This is accomplished by listing names and amounts as well as a word or two of description to classify the expenditures. These reports are used primarily by students and they contain more information than is found in the ordinary report because all expenditures are grouped and totaled under various classifications.

CONCLUSION

More than twenty years' experience in handling student activities at Purdue University has clearly demonstrated the need for such service. The student organizations have their affairs handled in a more business-like manner and as a result enjoy a good credit rating. Out-of-town firms recognize that in the financial adviser's office there is an individual with whom they can correspond.

When it comes to competitive bidding, such as for printing, engraving and photography, the adviser is tremendously useful. He may act as the spearhead in gathering information which, in turn, is submitted to the active committees of students appointed or elected for the purpose of selecting the successful bidder.

Funds are properly accounted for because the students know that they will be charged with the responsibility for accounting for all subscriptions, tickets, advertising income, book sales, fees and assessments. National organizations have assurance that they will be paid for their national initiation fees and badges; but, most important of all, the student who is the financial officer of the activity or group has an individual whom he can consult regarding the financial problems of his activity. He gains experience in the proper handling of and accounting for funds, the keeping of records, the making of contracts, the settlement of bills, the making of reports and other activities which are invaluable to him in training for whatever job he may have after graduation.

Surely in this field, the college business office has an opportunity to perform a real educational function. After all, is not the proper handling of finances a lesson that no student can afford to miss?

Too, it can be a source of satisfaction to know that hundreds of students are getting the benefit of this training every year and that they are learning not only in the classroom but during their social hours. Because the activities are functions in which the students are interested and which they perform voluntarily, the experience of handling these activities will stay with them throughout life.

TEST BEFORE YOU BUY

JOSEPH L. ERNST

Purchasing Agent, Board of Education
Rochester, N. Y.

PERFORMANCE TESTS FOR SCHOOL supplies and equipment furnish the best insurance for satisfactory wear and longevity. Specifications are essential and valuable in establishing sets of standards but, in most specifications, compliance tests are of the essence.

The present may be a poor time to originate standards and to insist on performance to the nth degree if a school or college expects to maintain sufficient supplies in the stock room or necessary equipment in the laboratory and classroom. Many raw materials are still so scarce that substitutes and synthetics are generally accepted rather than being the exception. In many cases the alternative offered may be entirely satisfactory but too often it proves to be only a makeshift or a filler-in.

PAINT FORMULAS REVIEWED

In years gone by we in Rochester adopted fairly airtight specifications and made exacting tests of paints and varnishes to ensure weathering, spreading and lasting qualities. Recently, with many important paint components so scarce, we revised our procedure and simply asked several producers to furnish us the formulas for their paints. The testing laboratory of the city was asked to review the several formulas and to advise which, in its judgment, would produce satisfactory paint from the standpoint of covering and wear. The laboratory rated the paints on the basis of the pigments used and on the resulting mix. In order to supply our needs quickly, we placed our order with the three manufacturers at the top of the rating list. As to the results, time and Rochester weather will provide the answer.

Paper towels, ash cans and soaps, to mention only three items ranking high in volume and importance on the requirement list of educational institutions, were formerly purchased by us to meet our own or federal specifications. In prewar days we advertised for and purchased towels in lots of several carloads. Today we can locate five suppliers who will furnish 100 cases each and, at recurring inter-

vals, one who might bid if we solicited prices on a carload. Nor can we be too fussy or technical about our specifications if we hope to keep the pupils' hands clean and dry.

We use several hundred ash cans a year but we find it necessary these days to shop and take what we can procure in small lots to meet our needs. A fortunate purchase of a fair sized lot of ash cans, from war surplus, will help to solve our problem this winter. With conditions as they are we cannot be too choosy but perhaps the experience with ash cans this coming winter will serve us well. Observations and tests that will be made should furnish data on which to base requirements when production is again back to normal.

With soaps in such short supply, regular sources have at times refrained from quoting on even general federal specifications. On followup queries we have been advised by suppliers that, owing to lack of basic fats and other ingredients, soaps of even the nationally recognized makers would fail to meet revised and lowered specifications in one or more particulars. When a near substitute is offered, tests of the product furnished are made by our laboratory and by our own maintenance organization in actual use. By improvisation we have taken care of our needs even if some complaints on quality have been received.

During this postwar period of uncertainty as to price and quality most suppliers shy away from quoting on large quantities, extended deliveries and fixed costs. Frequently we are finding it more advantageous to ask for price and delivery in small lots. Suppliers generally desire to take care of old customers, having a weather eye out for the time when the present seller's market reverts to the buyer's advantage, but they are loath to assume obligations for the long pull.

New goods are rapidly coming on the market, some rather revolutionary items of equipment and others mark-

ing moderate advances over the standard items of the '30's. Again the war influence will be felt. Many of these products will require careful testing before an institution embarks on an extensive buying program. Some old standard prewar friends will be relegated to the scrap heap. Lighter, tougher metals will substitute almost overnight for some of the weighty items of equipment formerly accepted as necessary to durability. Metal furniture for dormitory as well as for office use will increasingly demand more attention. The sponsors of metal furniture point to its light weight, the ease of keeping it clean and its durability. These three attributes can readily be judged over a short period of time by actual use in classroom or dormitory, supported by specific tests in collaboration with maintenance department and laboratory personnel.

BETTER PLASTICS PREDICTED

The general field of plastics is the subject of much discussion; perhaps too many superficial and unsupported claims have been made. During the war era of scarcity, however, all of us managed nicely with many plastic substitutes. Greater development in this field can be expected in the days immediately ahead. Our experience in the last half decade gives us an inkling of what may be expected. The weaknesses that have showed up in plastics will be the ones we shall mark for correction as more plastic material comes on the market.

Office equipment and the necessary supplies are items that bulk large on the want lists of schools and colleges. These items can reasonably be checked for performance. In prewar days it was a simple matter to keep accurate records regarding typewriters, duplicators and adding machines. In most educational institutions office machines serve two purposes: for the use of office practice classes and for general conduct of the institution's business.

By keeping a careful record by typewriter number, starting with the date of the machine's acquisition, charges can be made against each machine, a

record being kept of the time spent; the number of calls and the cost of each repair job, overhaul or adjustment, and the number and cost of new parts requisitioned. Over a period of months and taking a large number, it is possible to tell which make of machine for a given type of job is the most economical. If it is desirable to have some of each make of typewriters available for practice use, figures for upkeep cost and the life of the machine will indicate which brands to stock heavily and which lightly.

When it comes to office machine supplies, such as stencils, carbon paper and ribbons, I favor periodic tests using the "blindfold" method of submitting samples of the various products to the departments or individuals who will assist in the conduct of the tests. When, in considering stencils, the various tests for desirability, color, clearness of copy and strength have been completed, a composite record of the findings should be made.

This record, evaluating the various points in the ratio of importance, should be carefully checked and the cost of each stencil should be considered before turning to the chart key. The cheapest stencil showing the highest percentage in the desired quality range should be recommended to the purchasing agent for procurement. Consulting the chart key at this point reveals the brand and manufacturer whose product will be purchased.

This method is generally considered fair by the several suppliers involved and even the losers accept our judgment with reasonably good grace and hope for better luck next time.

A testing method, such as the one described, is practically a "must" for tax supported schools and colleges but even private institutions find it useful to back up their judgment.

The facilities available to the public schools in Rochester for testing supplies and equipment are those usually at hand in a reasonably large institution or in a fair sized city. Universities with their chemistry and physics laboratories are in an excellent position to test most of the items purchased for institutional use.

My final word is to use these trying postwar days, when a buyer is likely to take what he can find rather than what he wants, as a laboratory period so that when production approaches normal a set of standards and tests will be available on which to base procurement.

TAX WITHHOLDING FORMS

AS THE YEAR'S END APPROACHES AND with it the contemplation of income tax returns, the University of Illinois reflects upon its successful system inaugurated this year.

By using special forms devised in its own offices and automatic machines in its tabulating department, the university sent out 10,500 income tax withholding receipts by Jan. 12, 1946, a full 18 days before the deadline required by law.

The key to the job was in quadruplicate forms planned by C. H. Pratt, chief accountant of the university's business office, and approved by the Bureau of Internal Revenue. Though slightly different in appearance from other "W-2" forms, they contain the same information on front and back and are so designed that the machines can fill in all data and place the name and address in such position that regular window envelopes can be used for mailing.

A total of \$1,274,248 was withheld for taxes from University of Illinois

employees in 1945. The job of reporting the gross income and the total withheld for each individual, making out the quadruplicate receipts, checking names and totals and mailing the receipts was done by the accounting and tabulating departments of the university business office.

Computing totals and checking names for errors owing to misspellings began immediately after Christmas, as soon as December pay rolls had been run through the machines. Checking and running of the tax forms were completed by January 7.

The four copies were separated, two to be sent to the employee, one to the federal tax authorities and the fourth for the university's files. This separation and stuffing of envelopes began January 7.

The receipts for the 8000 employees on the university's Urbana-Champaign campus were mailed January 8, 9 and 10, and those for the 2500 employees on the Chicago campus by the end of the week.

WITHHOLDING RECEIPT - 1945
For Income Tax Withheld on Wages

ORIGINAL
DO NOT LOSE THIS RECEIPT

Form W-2

To EMPLOYEE: KEEP THIS WITHHOLDING RECEIPT. You will need it when you file your 1945 income tax return after December 31, 1945.

You may use a Withholding Receipt as your 1945 income tax return if your 1945 income equals the 1945 Withholding Receipt. A married couple may make a combined return on this Withholding Receipt if their total income equals the law. Their incomes should be combined on Lines 1, 2, and 3, and shown separately on Line 4. The Government will figure the tax on either the combined or the separate incomes, whichever is to the taxpayer's advantage.

EMPLOYED BY WHOM PAID (No. 1, 2, Identification No.)
BOARD OF TRUSTEES
University of Illinois
URBANA, ILLINOIS

EMPLOYEE TO WHOM PAID (No. 3, Identification No.)

To EMPLOYEE: Change name and address if not correctly shown

App. 3-12-Apr. 1945

LINE 1 Write total of wages shown on this and all your other 1945 Withholding Receipts (Form W-2) \$

LINE 2 If you got any wages from which no tax was withheld, or any dividends or interest, write total \$

LINE 3 Add Lines 1 and 2. Write total here \$

NOTE: If Line 2 is less than \$100 AND Line 3 is less than \$5,000, you may use the Withholding Receipt as your return provided you had no income other than wages, dividends and interest. If your income does not meet this test, use Form 1040.

LINE 4 If Line 3 includes income of both husband and wife, show husband's income here \$ wife's income here \$

Employee Number	TOTAL WAGES PAID	TAX WITHHELD

DO NOT WRITE IN THESE SPACES
(over)

WITHHOLDING RECEIPT - 1945
For Income Tax Withheld on Wages

TRIPPLICATE
DO NOT LOSE THIS RECEIPT

Form W-2

INSTRUCTIONS TO EMPLOYEE

Prepare Withholding Receipt in triplicate for all employees from whom tax has been withheld. Give original and duplicate to employee. Forward the triplicate (W-2) and Reconciliation (Form W-3) with Return of Income Tax Withheld on Wages (Form W-1), when filed with Collector for the fourth quarter of the year (or with the employer's final return). (See Circular 71-Revised 1944.)

EMPLOYED BY WHOM PAID (No. 1, 2, Identification No.)
BOARD OF TRUSTEES
University of Illinois
URBANA, ILLINOIS

EMPLOYEE TO WHOM PAID (No. 3, Identification No.)

To EMPLOYEE: Change name and address if not correctly shown

App. 3-12-Apr. 1945

Employee Number	TOTAL WAGES PAID	TAX WITHHELD

Two "W-2" forms from the automatic machine strip used at the University of Illinois in reporting income tax withholding to 10,500 employees. They were devised by C. H. Pratt, chief accountant at Illinois, so that the name appears in the proper position for use in a standard window envelope.

THIS POWER PLANT HAS A FUTURE

J. S. BENNETT

Supervisor of Operations, University of North Carolina

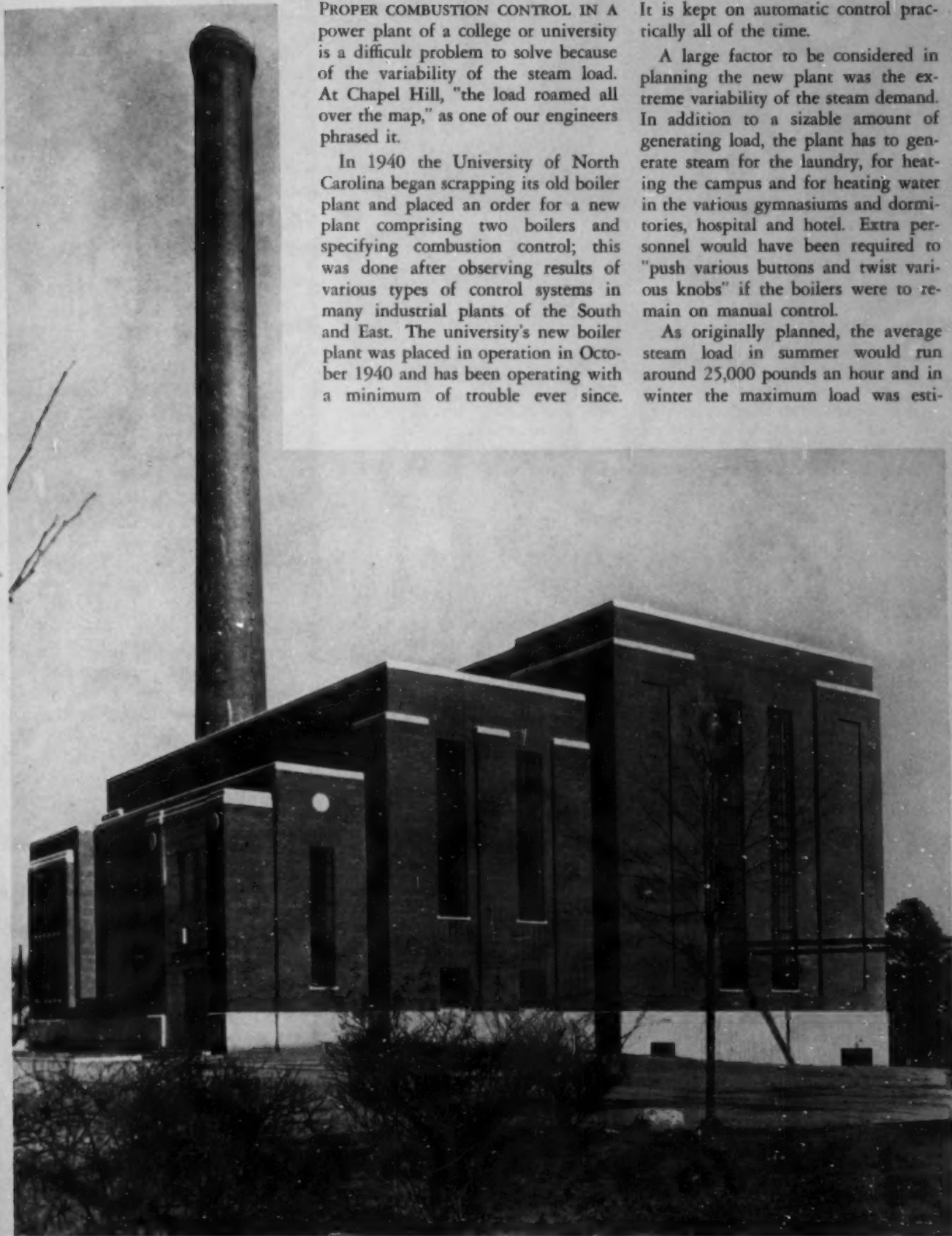
PROPER COMBUSTION CONTROL IN A power plant of a college or university is a difficult problem to solve because of the variability of the steam load. At Chapel Hill, "the load roamed all over the map," as one of our engineers phrased it.

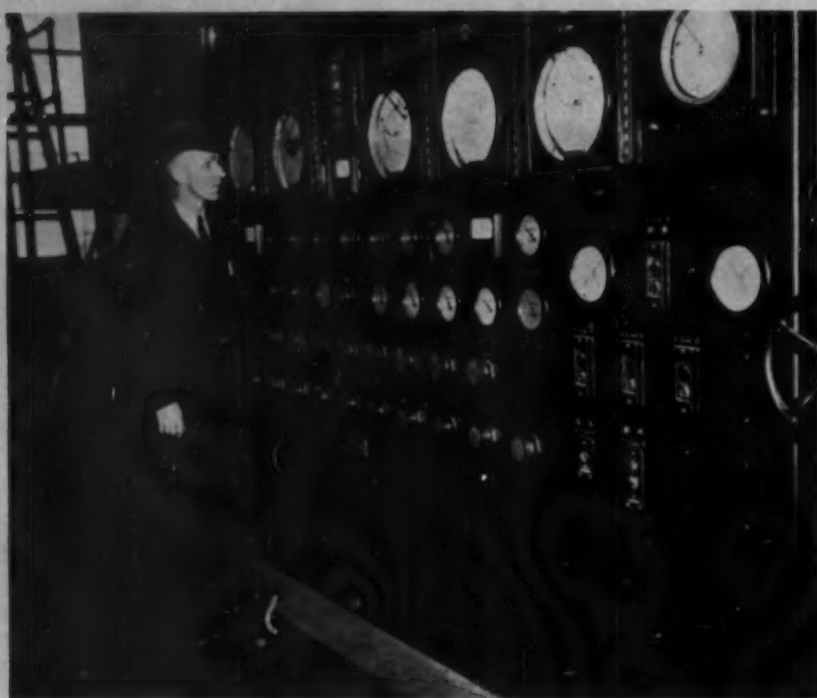
In 1940 the University of North Carolina began scrapping its old boiler plant and placed an order for a new plant comprising two boilers and specifying combustion control; this was done after observing results of various types of control systems in many industrial plants of the South and East. The university's new boiler plant was placed in operation in October 1940 and has been operating with a minimum of trouble ever since.

It is kept on automatic control practically all of the time.

A large factor to be considered in planning the new plant was the extreme variability of the steam demand. In addition to a sizable amount of generating load, the plant has to generate steam for the laundry, for heating the campus and for heating water in the various gymnasiums and dormitories, hospital and hotel. Extra personnel would have been required to "push various buttons and twist various knobs" if the boilers were to remain on manual control.

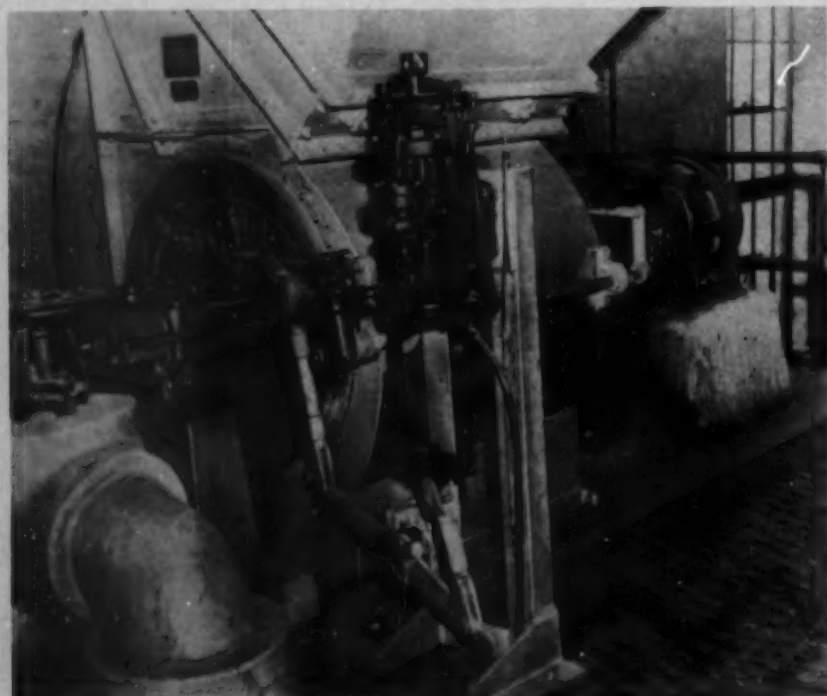
As originally planned, the average steam load in summer would run around 25,000 pounds an hour and in winter the maximum load was esti-





Chief Engineer H. I. West of the University of North Carolina stands in front of the master control panel of the heating system. If the instruments could be read, one would see a fine CO_2 reading of 11 or 12 per cent. Steam flow charts would show extreme variations in the load.

The receiving regulator shown is the one connected to the inlet vane control of the forced draft fan. The regulator is receiving its loading pressure from the master sender via a totalizer and control station.



mated to reach as high as 75,000 pounds an hour. Actually, our peak load of steam this winter will be 90,000 pounds instead of 75,000 pounds. One year from now, with three large dormitories being built and other demands being met, our peak will be more than 100,000 pounds of steam an hour.

The steam lines running from the present power plant to the center of the campus pass through a concrete walking tunnel which is lighted and ventilated. At present, we have one high pressure steam line at 450 pounds, one steam line at 75 pounds, one steam line at 25 pounds and one return line in this tunnel. There is still space left for additional pipes without any changes.

When the plant was originally built, our peak power load was 2000 kw. This winter it will exceed 4000 kw. In addition to supplying electrical power to the university, we also supply it to the town of Chapel Hill on a regular utility rate basis. The extra power to make up this peak is purchased as our generators do not have the capacity to take care of the peak load. During the peak periods we put our generators in parallel with those of the company from which we purchase power to enable us to generate our capacity.

The equipment of the new boiler plant, which uses powdered coal and makes use of three pulverizers, the central one being adapted to feed either boiler, consists of two combustion type of VU boilers rated at 70,000 pounds each, at 450 psi, 750 ft. The boilers are fired by three bowl mills, each having a rating of 35,000 pounds per hour steam.

For power, the plant has a machine rated at 2500 kw. at 80 per cent. This machine is condensing, but with two extraction stages. It extracts at the 75 pound stage manually and at 25 pounds automatically. The 25 pound stage is for heating throughout the campus, and the purpose of the manual extraction at 75 pounds is to take care of any deficiencies of the 25 pound extraction. About 90 per cent of the steam is returned to the boilers as condensate. The longest run of steam heat piping is approximately 5000 feet.

Despite the wide variation in load and the use of powdered coal, the new combustion control takes care of all contingencies automatically. The control makes the necessary corrections

of fuel and air to produce efficient combustion and does this task so unerringly that the positions of the various instruments are in process of change even before an operator can detect the need for such changes by looking at his gauges and instruments.

The operation of the air operated control system in use is comparatively simple. The impulse from one compensating relay is imposed on the diaphragm of a receiving regulator which controls the lever on the vari-speed drive of the pulverizer feeder. This regulator properly positions the lever of this drive so that the proper amount of coal will be fed to the mill for each boiler load. The impulse from a second relay is connected to the primary air damper of the pulverizer. In this manner the damper is properly located for each boiler load. The compensating bars on these regulators provide the means of calibrating the regulators in the field so that the exact desired movement of the regulator for each loading can be obtained.

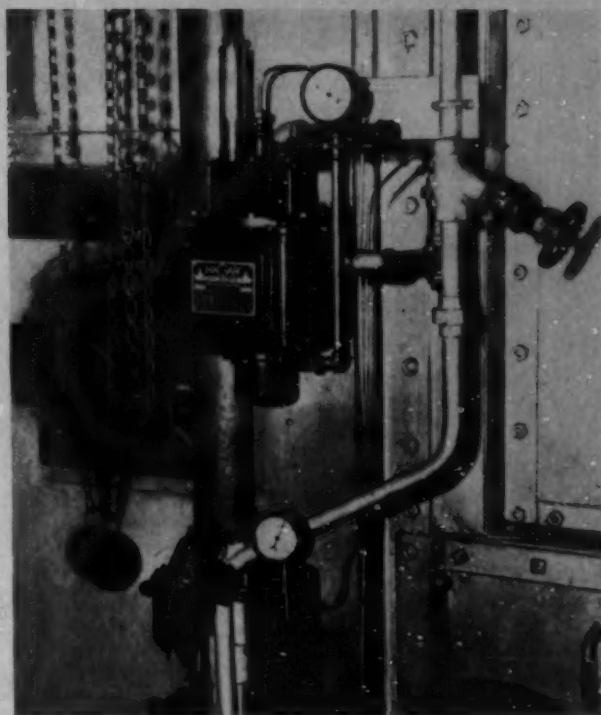
The master impulse, at the same time that it is to be transmitted to the fuel feed controllers, is also imposed on the bellows loading of the double diaphragm sender. Should master loading call for an increased air flow, the sending pressure from this diaphragm sender changes so that air flow to the boiler is increased. This increase remains in effect until air flow balances master loading.

The impulse from the diaphragm sender is transmitted to a manual control station located on the panel board. The manual control station gives the operator a means of placing the forced draft damper under manual control. The impulse is then transmitted to a receiving regulator which is directly connected to the forced draft fan inlet vanes. These vanes are moved by the regulator until correct forced draft air flow is established for all boiler loads.

To maintain constant furnace draft, a diaphragm regulator is installed, operating through a relay on the panel board to control a receiving regulator connected to the induced draft fan dual drive speed controls in combination with close damper control. This diaphragm regulator is so sensitive that it will respond to a pressure change of only 0.02 inch H_2O . At the same time its stability is so great that it will hold furnace pressure at precisely the right point indefinitely.

Our biggest problem with the new power plant has been the disposition

The furnace pressure regulator shown here is sending a loading pressure through a manual control station located at the panel, thence to a receiving regulator controlling the boiler uptake damper and to a control valve located in the steam supply line to the turbine of the induced draft fan.



of fly ash. Pulverized fuel is used, so a fairly thorough investigation as to the proper disposal of fly ash from the stacks was made.

Our investigations showed that this fly ash was so light that it would not fall in the vicinity of the power plant but would be disbursed over such wide areas that it would affect no one. This proved to be an error, because the one complaint we have had has been from the fly ash falling within a few hundred yards from the plant in the direction of prevailing winds at certain periods. We are now planning to put in fly ash precipitators to take care of the whole plant when it is time to install the next boiler. The power plant building was con-

structed with space left for a third boiler and another electric generator. When the plant grows beyond its present capacity, we shall be able to take the west wall out and extend the equipment as far as is necessary. This was taken into consideration when the building was designed. We are asking the state legislature for sufficient money to purchase and install one boiler producing 150,000 pounds of steam per hour and one 5000 kw. electric generator.

This power plant has proved that the study given it before it was designed was more than worth while as it is one item on the campus that was planned for present and future needs along modern lines.

FIRE! . . .

is a constant threat to life and property on any college campus. James McElroy in the December issue will tell you what you ought to do in order to pass inspection by the fire chief. You will undoubtedly discover that simple inexpensive measures can be taken on your campus which will tend to make the buildings free from fire hazard.



THE PROFESSOR AND HIS JOB

M. M. CHAMBERS

American Council on Education

ALL FACULTY MEMBERS ARE EMPLOYED under contract. One of the most complex and uncertain features of their relationship to the institution is wrapped up in the simple question, "What and how much may a professor do to obtain additional earnings from extramural sources, concurrent with his employment as a full time faculty member?"

Extramural Activities

Enterprising professors often write books, edit journals, engage in lyceum work or radio broadcasting, do private teaching, invent machines, make patentable scientific discoveries or serve as paid consultants to governmental agencies or private industrial or commercial firms. Such activities usually redound to the credit of the professor and his institution and some of them are almost inseparable from the customary concept of professorial duties.

Do they sometimes tend to overshadow the professor's primary obligation? Can they lead to poor instruction and poor administration in a college or university and undermine the morale of the errant professor's students as well as the esprit of his faculty colleagues?

In the cold and level eye of the law there is only one test: Is the professor neglecting in any respect the duties he contracted to perform? The burden of proving neglect is upon him who alleges it; and in the absence of such proof no court will intervene. This is illustrated by the most recent case of its kind. A taxpayer's suit was brought in Kentucky to recover for the state some \$14,000 paid to the dean of the college of engineering at the University of Kentucky as salary at the established rate of \$5000 a year for nearly three wartime years during which he was engaged in Washington as consultant to the assistant chief of staff of the army (about two years) at \$1 a year and as adviser to the undersecretary of war (about one year) at \$8000 a year.

The plaintiffs introduced no witnesses except the dean himself and the comptroller of the university, both of whom were named as defendants. Summing up the effect of the testimony, the court of appeals decided that it "proved conclusively that, at all times during the period in question, he [the dean] performed the full function of the office of dean of the college of engineering and, in addition thereto, rendered extraordinary services to the university which otherwise would have required the president, or some other representative of the university, to make many and frequent trips to Washington."

The detailed duties of the dean's office were performed by an assistant dean but under the dean's "direction and supervision"; the arrangement was approved by the president and the board of trustees of the university, and "the evidence concerning his services to the state during the period of time that he acted as consultant and adviser to the War Department . . . shows, without question, that the services were well worth the salary paid him by the university," concluded the court.¹

Two other wartime decisions are similar in tenor. When Clarence A. Dykstra, then president of the University of Wisconsin, accepted appointment as administrator of the National Selective Service and Training Act of 1940, the state supreme court decided that his federal job was not incompatible with his university presidency.² A point of difference from the more recent Kentucky case is in the fact that Dykstra had an understanding with the board of regents of the university to the effect that he would continue to draw his regular pay as president of the university but would

pay to the university the amount of his federal salary less expenses.

Extramural remunerative activities were the root of the controversy between Bertrand Russell and the Barnes Foundation in Philadelphia. A written contract simply bound Russell to deliver one lecture a week for the foundation for a period of five years, 1941-45, at a salary of \$8000 a year. During the first two years he fulfilled the contract but earned somewhat in excess of \$5000 from outside writing and lecturing. At the end of the second year the foundation discharged him and when sued for breach of contract offered the defense that there had been an oral understanding that Russell would be bound for his full time services.

Whether this was true or not was of no legal consequence, for the parol evidence rule prevents the introduction of evidence to alter or add to the terms of a written contract which appears complete on its face. Accordingly, Russell was awarded damages amounting to five sixths of the agreed salary for the unexpired three years of his contract and was fully vindicated as having performed his part up to the day when his employer wrongfully discharged him.³

Two much older cases are also illustrative. A small college in Illinois was held to its contract when it employed a music professor on a fee basis with a guaranteed minimum of \$800 a year and then refused to perform according to the terms on the ground that the professor had taken private students and thus supplemented his income. The evidence showed that he had not neglected his schedule of duties at the college and no proof was advanced to show that the contract prohibited his taking private students or that his doing so was ac-

¹Commonwealth ex rel. Harper et al. v. Graham et al., (Ky.), 194 S. W. 2d 377 (1946).

²Martin, Attorney General, v. Smith, State Treasurer, 239 Wis. 314, 1 N. W. 2d 163 (1941).

³Russell v. Barnes Foundation, 50 F. Supp. 174; 136 Fed. 2d 654; and 52 F. Supp. 827 (1943); affirmed, 143 Fed. 2d 871; and certiorari denied, 323 U. S. 771, 65 S. Ct. 122, 89 L. Ed. 67 (1944).

tually in any way detrimental to the college.⁴

Nearly fifty years ago a professor at the University of Illinois, employed from year to year as was then the custom, obtained temporary employment at the University of Chicago during a summer when no services were scheduled or required of him at the state university. Thereupon the University of Illinois withheld a part of his annual salary, alleging in effect that it had exclusive claim upon his full time services for the full calendar year. Looking at the custom of the time and the facts of the case, the trial court decided that the professor was bound only for the academic year when his classes were in session at the University of Illinois and was within his rights in obtaining summer employment elsewhere.⁵

EXIT RAMPANT INDIVIDUALISM

Despite the fact that apparently all the high court decisions extant seem to favor the professor's right to engage in remunerative outside work, unquestionably there is a long slow trend toward a more closely knit institutionalism in which the fruits of the professor's labors, especially those related to or growing out of his regular work, tend to be regarded as properly belonging to the public as represented by the institution.

There have been notable instances wherein hard working and public spirited professors have voluntarily turned over to the institution the marketable results of their own research work. Several large universities have incorporated research foundations, one of the purposes of which is to hold and exploit patentable inventions and discoveries made by members of their staffs.⁶

The products of research and other scholarly labors are increasingly the result of cooperative endeavors rather than of lone genius; and it would be difficult to say how much of the royalties and other fees that accrue to some professors is owed to the facilities which their institutional

connection affords them. Some institutions now have administrative policies taking cognizance of outside remunerative activities of faculty members and stipulating, where legally possible, that the proceeds of certain types become the property of the institution. Whether and to what extent this tendency should come to embrace all copyrights, lecture and consultant fees and other honorariums is a live question having many difficult angles.

It would be simpler if all faculty members received salaries fully commensurate with the value of their work to the institution and to society. Under that condition the desire for outside earnings for individual enrichment would have little to defend it; but that condition does not exist. For a great many faculty members, accessory earnings are insignificant or nonexistent and it is a constant problem to determine to what extent this may be ascribed to whole-souled devotion to heavy teaching duties, how much to the deferred results of scholarly labors on the frontiers of knowledge and how much to plain inertia. At any rate, the matter of outside earnings is so intimately related to faculty morale that it is likely to receive a great deal of administrative attention in the future.

RECENT CONTRACT CASES

Apart from the matter of outside activities of professors, two recent cases illustrate well known principles of contract law. A bacteriologist living in Pennsylvania negotiated with an institution in California regarding a position as associate professor and head of the research department of a projected institute of tropical disease. He had a physical handicap which made it necessary for him to use crutches and made it impossible for him to use stairways without assistance. He took great care to make the facts fully known in the preliminary correspondence and specifically asked if they would disqualify him.

Upon receiving a negative answer to that question and an outright offer of employment at \$3600 for the academic year of ten months, the professor accepted and presented himself at the California institution to begin work. On the second day after his arrival the president informed him that he had changed his mind and the institution paid the expenses of the professor's immediate return to his

home in Pennsylvania. The facts of the case made it a clear breach of contract and at a trial occurring after the end of the academic year the professor was awarded a judgment for the full agreed salary for the entire ten months with interest on each monthly installment from the date it became due.⁷

Another California case concerned tenure in the state colleges under the act of Aug. 4, 1943, which provided that any state college teacher reappointed after three consecutive years of prior service would be considered appointed for indefinite tenure and created a board of appeals. A chemistry professor at San Jose State College had been reappointed June 30, 1943, but in December the president informed him his job would be abolished and his employment terminated June 30, 1944. Upon appeal to the superintendent of public instruction, the matter was reviewed by an advisory board created by administrative order in 1941 (not by the board of appeals created Aug. 4, 1943) and the decision was adverse to the professor's claim of indefinite tenure. He then sued for a writ of mandate to compel the board of appeals to review the case.

The court refused to grant the writ, pointing out that the act of 1943 was plainly prospective in its application and not retroactive. It applies only to reappointments made after the date of its enactment. The reappointment at issue in this case had been made a little over a month prior to the effective date of the act. Therefore the plaintiff professor had acquired no rights under the act and the board of appeals created by the act had no jurisdiction in his case.⁸

The law concerning the professor and his job gradually grows and adapts itself to new conditions. Good instructional service is the central purpose of most educational institutions. Since three fourths of the annual operating budget is often devoted to that purpose, the developing law of the subject touches the work of business officers as well as that of presidents, deans and department heads who are primarily responsible for clean-cut dealing with faculty members.

⁷Canavan v. College of Osteopathic Physicians and Surgeons, (Cal. App.), 166 P. 2d 878 (1946).

⁸Botts v. Simpson, (Cal. App.), 167 P. 2d 231 (1946).

⁴Chaddock College v. Bretherick, 36 Ill. App. 621 (1889).

⁵Trustees of University of Illinois v. Bruner, 66 Ill. App. 665; affirmed, 175 Ill. 307, 51 N. E. 687 (1898).

⁶An example is afforded by the case of Wisconsin Alumni Research Foundation v. George A. Breen and Co., Inc., 85 Fed. 2d 166 (1936); certiorari denied, 299 U. S. 598, 57 S. Ct. 191, 81 L. Ed 441 (1936).

FURNISHINGS for STUDENTS' ROOMS

THE PROPER FURNISHING OF DORMITORY rooms is an important responsibility for a college or university. In these days of overflow enrollment and scarcity of supplies, the ingenuity of college administrators has been severely tested in order to provide the necessary accommodations.

COLLEGE and UNIVERSITY BUSINESS, in initiating its first "Continuing Study of Operating Practice," confined its inquiries entirely to institutions in the process of constructing permanent dormitories. An attempt was made to discover which items are commonly furnished by the institution and which the student is expected to provide. The questionnaire did not concern itself with current practice regarding furnishings in temporary facilities for veterans.

A total of 155 questionnaires was mailed to colleges, universities or academies involved in the construction of permanent housing facilities for students. Out of this number, 73 returns were received; this response of 47.09 per cent constitutes an unusually high return for such surveys.

In commenting on this survey, Gerald D. Henderson, business manager of Vanderbilt University, states:

"The items of dormitory furniture and supplies listed in the summary tabulation seem to fall into three groups.

"One would conclude that the reporting colleges, whether for men or for women, follow uniformly the practice of supplying the heavy essentials, including dressers, beds, mattresses, desks, chairs and mirrors. Because of the nature of these this is to be expected. Moreover, breakage here is infrequent.

"Supply items, towels, sheets, pillow cases and blankets, are provided

WHO SUPPLIES FURNISHINGS FOR STUDENTS' ROOMS?

	In 60 Men's Dormitories		In 57 Women's Dormitories	
	By School	By Student	By School	By Student
Dresser	100%	---	100%	---
Bed	100	---	100	---
Mattress	100	---	100	---
Sheets and Pillow Cases	17	83%	22	78%
Blankets	12	88	18	82
Desk and Desk Chair	100	---	100	---
Easy Chair	73	27	75	25
Desk Lamp	66	33	53	47
Floor Lamp	21	79	28	72
Draperies	40	60	30	70
Bath Towels	4	96	2	98
Face Towels	4	96	2	98
Rugs	8	92	33	66
Mirrors	93	7	96	4

largely by the students. Perhaps there are reasons for this: the need for laundering, the frequency of loss and the difficulty in recent years of procuring such necessities in quantity. These are personal articles often available from home supplies which can be brought to the campus without great inconvenience.

"The third class includes *desirable but nonessential furnishings*, such as draperies, rugs, floor lamps and easy chairs. An effort to hold costs and rents to economy levels may account for the colleges' reluctance to supply them."

Leaders in institution management at Teachers College, Columbia University, point out that the trend, however, is definitely in the direction of colleges' supplying bed linen.

In answer to this question, H. W. Loman, purchasing agent of Pennsylvania State College comments: "It is my personal opinion that a policy such as we have been following at Penn State is advisable for all other

college dormitories for the sake of uniformity, sanitation and convenience as well as for other miscellaneous advantages. We provide students with sheets and pillow cases, including laundry service without extra charge. The linens are changed by dormitory personnel once a week. In addition, we provide two wool blankets per student with the understanding that any student who wishes an additional blanket will provide it himself."

Results of our survey show that a large proportion of the institutions provide draperies for the students' rooms, this being true in 40 per cent of the men's dormitories and 30 per cent of the women's dormitories. A much higher percentage of women's dormitories are supplied with rugs, whereas it appears to be evident that a linoleum or asphalt tile floor takes the place of rugs in men's dormitories. In the case of an extra easy chair, 73 per cent of the institutions provide this in men's dormitories and 75 per cent in women's dormitories.

QUESTIONS AND ANSWERS

Employees and the Public

Question: How can we encourage our employees to become public relations assets of our organization?—R.J.A., Wis.

ANSWER: The first requisite is to make each employee feel that he has an important rôle in the institution's activity and progress. Most colleges are 50 years behind the times in employee relations, paying little or no attention, in most instances, to such basic considerations as careful selection and training, upgrading, merit increases and morale building activities, especially for members of the non-teaching staff.

A second requirement is for the president himself to set the example by practicing as well as preaching good public relations. Good public relations cannot be accomplished by edict; it must develop as "a way of life" for the entire institution—from president to janitor.

Once employees are made to feel that they are important, the way must be kept open for them to give expression to that interest and attitude. Frequently the lesser employees who meet more of the public than do the faculty members and the president know the "bugs" that irritate; just as during the recent conflict employees of war industries made many suggestions which increased production and lowered costs, so college workers can tell administrators much that would be helpful in making friends for the institution if they are given the opportunity to do so.

Responsibility for failure of employees to be public relations assets almost invariably rests with the administrators, not with the workers.—**HAROLD K. SCHELLENGER.**

Removing Rubber Burns

Question: Do you know of a way to remove rubber burns from wood gymnasium floors?—B.H.C., Pa.

ANSWER: The following method of removing rubber burns from wood gymnasium floors has proved highly satisfactory. First, four large gunny sacks and a piece of felt, ¼ inch thick and 18 inches square, are made into a mat, with the felt in the center. The

mat is sewed together with strong cord, then trimmed to an 18 inch circle to fit the polishing brush on the floor machine.

The pad is wet with a rubber solvent which can be purchased from most of the firms selling school supplies. The mat is placed under the brush of the floor machine and the operation is the same as scrubbing or polishing.

As the mat dries out, it should be wet with more of the cleaner. A man with a mop and a pail of hot water to which a neutral cleaner has been added should follow the machine, as the rubber solvent is very slippery if it is not washed off.

The coarse mesh of the gunny sack in the mat not only acts as a scrubbing brush but picks up sharp particles of gravel and grit. The gunny sack does not act as an abrasive, however; this would require a more closely woven cloth.

Two men, using an 18 inch floor machine, a gallon of rubber solvent and a few pails of hot water, cleaned a 70 by 80 foot gymnasium floor and had it ready to use in two hours. A few badly burned spots had to be touched up with fine steel wool but otherwise the machine did a fine job of cleaning.

The felt must be used in the pad as it acts as a wick and distributes the solvent evenly. This method is not recommended for floors other than wood.—**CHARLES WELCH.**

If you have a question on business or departmental administration that you would like to have answered, send your query to **COLLEGE and UNIVERSITY BUSINESS**, 919 North Michigan Avenue, Chicago 11, Ill. Questions will be forwarded to leaders in appropriate college and university fields for authoritative replies. Answers will be published in forthcoming issues. No answers will be handled through correspondence.

Dormitory Supplies

Question: We are planning to equip a new dormitory. Should the institution provide sheets, pillow cases and blankets?—J.T.V., Va.

ANSWER: It is my personal opinion that a policy such as we have been following at Penn State is advisable for all other college dormitories for the sake of uniformity, sanitation and convenience as well as for other miscellaneous advantages. We provide students with sheets and pillow cases, including laundry service without extra charge. The linens are changed by dormitory personnel once a week. In addition, we provide two wool blankets per student with the understanding that any student who wishes an additional blanket will provide it at his own expense.—**H. W. LOMAN.**

Presenting Financial Reports

Question: We are planning to publish a new financial report. What can we do to increase its reader interest?—E.K.D., Kan.

ANSWER: The following ways are suggested in which reader interest in financial reports can be increased: (1) a letter of transmittal or condensed summary setting forth in readable form the facts of the report; (2) charts or other graphic illustrations; (3) an attractive cover and arrangement; (4) a comprehensive table of contents; (5) a good cross reference between schedules; (6) avoidance of too much detail.

The report of the University of Chicago may be mentioned among many others as an excellent example.

Several large institutions, including the University of Minnesota and the University of Illinois, have supplemented their regular complete financial reports by a concise pamphlet summarizing in more or less popular form the principal financial facts.

Needless to say, all financial statements should follow as closely as possible the standard forms recommended by the National Committee on Standard Reports, which have now proved themselves to be practicable both from the standpoint of the institution and from the standpoint of the public.—**LLOYD MOREY.**

THE ROVING REPORTER

Self Supporting Bus Line

A self supporting bus line has been proposed for the University of Georgia students who have difficulty traveling to classes from Franklin campus to Ag Hill and from Coordinate College more than a mile away, where freshmen girls live.

The plan, known as the university transportation project, was formulated by two students, Phillip L. Barnett and John Sheffield, and has been approved by President Harmon W. Caldwell and sent to the board of regents for approval.

Under the proposed project, tickets entitling a student to transportation among the three university campuses for an entire quarter would be sold at from \$4 to \$6 each. The buses would arrive at each of the three campuses before classes each morning and would run between the Agriculture College and Franklin campus at the end of each period. One trip would be made to and from Coordinate Campus at 1 p.m. and after the last period in the evening.

It is expected that the purchase of four buses would be sufficient to handle the traffic load and thus solve the present transportation problems.

Where to Put Spectators?

"How to keep from alienating friends" has become the problem of Glenn Jarrett, athletic director of the University of North Dakota, as he makes plans for handling spectators for this winter's basketball games. This year's record enrollment of 2600 students simply can't be crammed into the armory, outmoded military structure where the team plays its home games.

"By crowding them in like sardines, you can tuck 1500 persons in around the rafters," says Mr. Jarrett. "But everyone knows what a horbed of basketball this campus becomes, even before the big games."

To solve the problem he is faced with three alternatives, none of them popular:

1. Eliminating the reserved seat section and making basketball an all-student affair, which would meet with disfavor of downtown fans.

2. "Rationing" attendance, allowing half the student body to attend games alternately. This would cause a storm of protest.

3. Leave it to a "first come, first served" system, which might push the old armory right off its foundations.

Polite Suggestion

At Cornell University there was a reluctance to put up "No Parking" signs along areas where parking was prohibited. The solution was an



orange stripe about 2 inches wide painted on the street parallel to the sidewalk curbing. The illustration shows the system's effectiveness.

Teacher's Voice

If teacher's voice grates on little Johnny from now on it won't be the fault of Eastern Washington College of Education. All students in the teachers' training division are being tested for speech defects and those whose voices do not soothe and inspire must take courses in speech reeducation. Speech reeducation is polite academic language for making teacher stop talking through her nose, saying, "Good morning, children," in high C or rasping "Stay after school."

And Now the Thermocouple

You never know what these college scientists are going to think up. At Montana State College they haven't made a grasshopper stick out his tongue and say "ah" but they can take his temperature.

At the request of Professors J. H. Pepper and E. B. Hastings, Montana State College, a nationally known electrical equipment manufacturing firm has devised a tiny "grasshopper thermometer" for research being conducted by these two entomologists.

The thermocouple is technically known as a thermocouple, an electrical device for measuring temperature, which has a diameter of 0.005 inch, just the right size for grasshoppers.

The thermocouple was designed to meet the needs of the two Montana State College entomologists in their studies of control and extermination of the insects which annually destroy millions of dollars' worth of crops in the great plains areas of the United States.

Lawns Like Fairways

It is no accident that campus lawns at the University of Buffalo look like fine golf fairways, according to Conrad J. Leupold, superintendent of buildings and grounds. The secret is plenty of water regularly and faithful supervision by the sprinkling crew, he says.

Lawns are watered at night by means of mechanical sprinklers made of perforated pipe 28 feet in length, operating on central pivots. Four of these sprinklers are in operation every night during the summer, and each sprinkler is moved every hour, keeping it parallel to the one next to it.

The maintenance crew at night is instructed to move these with a precision that would be of credit to a drill sergeant. Each groundsman moves his sprinkler until it is seven paces past the circumference of the circle of lawn moistened during the previous hour of operation. This schedule is maintained all night.

NEWS

\$70,000,000 Starts Rolling for Classrooms . . . Nominal Price of 5 per Cent for Surplus Property . . . Fair Rent for Veterans' Housing . . . Controls on Cement

\$70,000,000 for Classrooms, Laboratories for Veterans

Announcement was made October 29 by the Civilian Production Administration that it has given blanket approval for use of \$70,000,000 in constructing college classrooms, laboratories and other educational buildings for veterans.

The C.P.A. stated that the Federal Works Agency would spend the money to tear down and move surplus federal buildings for use at colleges crowded with veteran students. The agency stated it has authorized such construction work at the rate of \$5,000,000 a week for fourteen weeks, as of October 29.

F.W.A. estimated that of the \$70,000,000 not more than \$7,500,000 would be spent for new building materials.

Rental Policy on Veterans' Housing

A total of 103,000 accommodations for student veterans and their families has been allocated to 675 educational institutions, according to F.P.H.A. announcement. More than 11,000 units of temporary housing for students had been completed prior to September school openings and approximately 65,000 were in various stages of construction.

The American Council on Education's housing committee, chairman of which is Arthur S. Adams of Cornell University, reached agreement with F.P.H.A. on a uniform rental policy for the accommodations furnished colleges and universities at federal expense. The committee also approved a proposal that a lump sum annual allowance for operating expenses, rather than actual operating expenses, be used in calculating net income to be paid by the local body to the F.P.H.A.

The rental policy adopted provides that a fair rent based on value be set in consultation with O.P.A. At the same time, the rent floor established is supposed to be not less than the estimated annual operating expense plus payments in lieu of taxes. The institution is allowed to make rent adjustments between the floor and ceiling to accommodate hardship cases of veterans.

Colleges to Get Surplus at 5% Nominal Price

The War Assets Administration has recently ordered a 95 per cent discount for schools and colleges in buying surplus property. Only institutions engaged in training veterans which have been certified by F.W.A. are eligible to receive the discounts.

The 5 per cent nominal price program includes the following items: furniture; electrical, woodworking, metalworking and business education machinery and equipment; professional, scientific, engineering and indicating and recording instruments. For these items, schools and colleges have priority over all other buyers.

Asks Army and Navy to Lease Equipment

Immediate assistance in providing adequate equipment and supplies for the colleges of the country has been asked of the War and Navy departments by Senator James M. Mead.

The senator points out that there are quantities of stock now in storage in both War and Navy departments which may include types of property critically needed by educational institutions. Some types of property, such as business machines, typewriters, office furniture and desks, are better preserved by being kept in use than by being stored in warehouses.

Continues Study of State Control for Wayne

Tentative recommendations for state control of Wayne University were approved by a joint legislative committee during its fourth meeting recently to investigate the advisability of transferring the university to the state of Michigan. The committee also obtained informal approval of the recommendations by a majority of members of the Detroit board of education.

The committee will make its final report at the first meeting of the state legislature in January.

According to Senator Don VanderWerp, chairman of the study committee, certain basic recommendations have already been agreed upon, including the method of transfer; the control body and its selection; the official name, and the disposition of the present staff and the property of the university.

The state may acquire control through legislative act. It would then set up a board of control, composed of eight members to be appointed by the governor and confirmed by the senate. Members would serve for eight year terms staggered so that two members would be appointed every two years. Members of the board would serve without compensation and would be reimbursed for reasonable necessary expenses.

The university would be designated as "Wayne State University of Michigan."

Further Veteran Aid Soon Up to Public

Because the annual costs of veterans' education is now in excess of a billion dollars a year, it is time for the American people to decide how far they wish to assume responsibility for this cost, according to a recent state-

ment by Dr. Francis C. Brown, secretary of President Truman's new commission to study education. Because of the rise in living costs, which has become a serious problem for veteran students, legislation will undoubtedly be introduced in Congress to increase subsistence payments.

Controls Imposed on Pools and Tennis Courts

Supplements 3 and 4 issued October 7 to VHP-1 tightened measures to conserve materials for the Veterans Emergency Housing Program. The \$15,000 small job allowance is restricted to buildings having a floor area of 10,000 square feet or more. The amendments also impose controls on swimming pools and tennis courts requiring concrete bases.

The placing of additional construction under control of the order was found necessary because substantial amounts of scarce materials were being used on exempted construction. Cement has become very scarce since VHP-1 was issued. Swimming pools require considerable quantities of cement, as well as soil pipe. Walls or fences built primarily of wood, brick, concrete or concrete blocks are restricted.

Bennington Seeks \$850,000

Bennington College recently announced the launching of a \$850,000 finance campaign for the purpose of obtaining funds for a library and the construction of a community assembly house. For scholarships and faculty salaries, \$375,000 is sought over a period of five years. Since 1932, when the college opened its doors, more than \$650,000 has been given in scholarships, including a substantial sum for local students. Not heavily endowed, the college receives 87 per cent of its income from tuition.

Mercersburg Opens Campaign

Mercersburg Academy recently began a \$340,000 campaign for funds to complete a new recitation and laboratory building. The new hall will contain 34 classrooms, the library, biology, physics and chemistry laboratories, a manual training room and a drawing room. Many of the rooms will be dedicated as memorials to former students who lost their lives in the war.

Air R.O.T.C. Program Will Be Expanded

To provide the Army Air Forces with a steady supply of college trained officers, Air R.O.T.C. courses have been established in almost a hundred colleges, the War Department announces. An enrollment of 16,000 students in the A.A.F. reserve officers training corps program this year is expected, with 50,000 college men taking part in the program in time.

The army invited 99 colleges to participate in the program and will establish 49 other R.O.T.C. units in institutions of higher learning next year. A.A.F. is assigning its best officers as instructors at these college units. Eight types of study courses are given: aircraft maintenance, armament, weather, communications, administration, statistical control, supply and transportation. Some schools give only one type but larger universities provide several.

The program is open to all male students except former army officers. Former enlisted men receive special credit for prior service. Participating institutions get considerable government aid in the way of textbooks and drill equipment. Funds for the program are available from the War Department R.O.T.C. appropriation.

Allegheny Salaries Are Adjusted

Salaried members of the faculty and staff of Allegheny College were granted a 10 per cent cost-of-living adjustment at a meeting of the college board of trustees recently. The college received \$76,000 in gifts during the last year. A new \$100,000 athletic plant is expected to be completed in 1948-49.

Warns Against Assembly Line Teaching

A plea for individualized rather than mass education was made recently by Dean Virginia C. Gildersleeve of Barnard College in an address to a record enrollment of 1247 students at the opening college assembly.

"The frightening thing is that numbers may force us into mass production in education," she said. "We have a national genius for mass production in material things. Can we make mass production effective in education? Can we set up assembly lines

that will enable us to shoot thousands of educated students past the members of the faculty and out the doors expeditiously?"

Miss Gildersleeve said that in this year of heavy enrollments college faculties must be careful not to deal with students on this assembly line system and that students must take the initiative in educating themselves.

Minnesota Teachers College Gives Rises

Legislative action in Minnesota for state supported colleges has resulted in salary rises averaging \$300 annually for instructors at State Teachers College. There was also a general rise for university in-staff.

The pay of teaching assistants was raised from \$155 a month to \$175. All other academic employees were given a 10 per cent increase on salaries up to \$3000, 5 per cent on the next \$2000, but none for that portion of the salary above \$5000.

Applications for Film Scholarships Open

Colleges and universities interested in receiving scholarship grants in 1947 in connection with the third annual award of Encyclopaedia Britannica Films summer tuition scholarships should make application before January 1, according to H. R. Lissack, vice president of the instructional films company.

The scholarships will enable carefully selected educators to study and apply the effective modern methods of using instructional motion pictures in the regular curriculum.

Applications should go directly to Stephen M. Corey, director of the center for study of audio-visual instructional materials at the University of Chicago.

Mr. Corey has chosen four other educators to serve with him on a committee which will select two educational institutions in addition to the University of Chicago to receive the scholarship grants. They are: W. A. Wittich, L. C. Larson, Charles F. Hoban Jr. and Francis W. Noel.

The minimum equipment and material which a school should have to qualify includes adequate projection equipment for motion pictures, a library of films, slidefilms and slides.

Columbia Has Strike of Maintenance Men

For several days in October Columbia University was handicapped in its operations by the strike of 500 C.I.O. maintenance workers. The main purpose of the strike was to obtain a union shop in substitution for the present maintenance of membership arrangement.

The strike was finally abandoned after a request by Arthur S. Meyer, chairman of the New York State Mediation Board. With Mr. Meyer as arbitrator, the two parties will seek to come to agreement on a new wage schedule, vacation and other working conditions.

The university, through Controller Henry McA. Schley, was adamant in its refusal to discuss the union shop issue. It rejected the union's proposal to arbitrate this point and offered to arbitrate all other points in dispute. The union finally agreed to withdraw its demands for a closed shop after it succeeded in organizing 98 per cent of the maintenance employees.

V.A. Threatens Striking Veterans

The Veterans Administration offices in New York City moved in to settle a radio school dispute in Manhattan where 550 students had refused to pass picket lines manned by 14 discharged teachers.

The V.A. ruled that all students who did not return to their classes immediately would forfeit their government subsistence payments. Students charged the Veterans Administration with "passing the buck" when the V.A. stated that the grievances

brought by the teachers who were discharged were a responsibility of the New York State Department of Education in determining the quality of instruction at the school. The instructors were dismissed when it was ruled they lacked qualifications for teaching.

Cornell Takes Over Old Resort Hotel

The old Glen Springs Hotel at Watkins Glen has been remodeled for use by married veterans attending Cornell University at Ithaca, N. Y. The hotel, once a favorite resort for fashionable tourists, has been visited by many notables, including the late John D. Rockefeller Sr.

Cornell University now has available several two room apartments for use by married veterans. The project includes private baths for each unit but there are no individual cooking facilities. Meals are served cafeteria style in the main dining room.

Teachers Guild Charges Undemocratic Move

The college chapter of the Teachers Guild, A.F. of L. in New York City, recently called on Mayor O'Dwyer to prevent what it termed an attempt by the presidents of the four municipal colleges to "destroy democratic government in the colleges" by seeking to have the board of higher education abolish by-laws under which departmental chairmen in these institutions are elected by the staffs. The present system of election has been used in the colleges since 1938.

In a letter to the mayor, Dr. William Withers, vice president of the guild in charge of colleges, declared that the staffs of the colleges had manifested "overwhelming opposition" to the change.

Members of the board of higher education announced that they would hold an open meeting to hear the opinions of various teacher groups on the proposed change.

A.A.U.W. Makes International Grants

The American Association of University Women made 39 grants to women students from European countries to enter American colleges and universities this year. Some of the students have come on research fellowships which are a long-established part of the association's program; 33 are receiving emergency international study grants raised by the A.A.U.W. as a postwar reconstruction project for women of the liberated countries. Many of the students were active in resistance movements; all had their studies interrupted by the war.



At the Educational Buyers Association meeting at Penn State College in early October: Col. William J. Mather of V.A.; Bert Ahrens, executive secretary, E.B.A., and H. W. Loman, Penn State purchasing agent.



Executive committee of Eastern Association of College and University Business Officers photographed by College and University Business at New York City meeting. Left: Comptroller H. W. Herzog of George Washington University and Boardman Bump, business officer of Mount Holyoke. Center: R. K.



Bachelder, business officer of Simmons and Charles H. Wheeler III, treasurer of University of Richmond. Right: J. Harvey Cain, accounting officer of the New York Board of Higher Education, and George E. Van Dyke, treasurer of Syracuse University. Program for December annual meeting in Boston was discussed.



Governor Dewey Blames U. S. for Slowdown

Governor Thomas E. Dewey charges that the federal government is taking essential materials for its own building programs for veterans while the state's emergency housing program is being stalled.

"Of the 46 colleges within the state that are receiving state aid in their expanded educational programs, as well as the three large emergency college centers which are being converted from former military and naval installations, nearly 50 per cent of the program has been slowed down because of lack of essential materials.

"This means that 50,000 of an estimated 100,000 veterans may be deprived this year of the right to higher education . . . or at least have their education delayed by months."

American University Drops Football

The board of trustees of American University in Washington, D. C., has voted discontinuance of football on the score that it "has ceased to be an amateur game played to benefit the development of students." Dr. Paul F. Douglass, president of the university, terms the practice of recruiting football players "the biggest black market operation ever related to education."

American University will continue all intercollegiate sports except football, for the subsidizing of which the board of trustees objects. Robert V. Fletcher, chairman of the board, said that he did not consider it advisable for American University, considering the size of its student body and the fact that it is a religious institution, to spend \$40,000 or \$50,000 for a football team.

Two Million Sought for Bryn Mawr Faculty

Bryn Mawr College recently announced the launching of a campaign for \$2,000,000 to be devoted primarily to increasing faculty salaries.

Salaries at the Pennsylvania school have not been raised since 1920 because of the greatly increased costs of operation of the college and an attempt to keep student fees as low as possible. Although the college this year increased student fees \$90, no

pay increase was possible out of the funds obtained.

Bryn Mawr salaries are reported to range from \$1800 for instructors to \$5200 for full professors. The financial campaign will be conducted in eight alumnae districts covering the entire nation.

Citizens Petition for a University of Westchester

Citizens of Westchester County in New York have petitioned the county board of supervisors to act on the proposal to create a University of Westchester in order to meet the need for educational facilities.

It was claimed that a class of 500 freshman students the first year would pay at least \$170,000. Faculty and staff would cost \$200,000, according to the estimate of one of the citizens appearing before the county board in behalf of the proposal. As enrollment increased a corresponding increase in tuition income would be noted, as well as a heavy increase in operating expense, but it was felt necessary that action be taken irrespective of this cost.

All school superintendents in the county have approved the plan for creating a University of Westchester.

Problem Veterans Few, Survey Shows

Few "problem" veterans are showing up on the college campus in spite of the vast numbers of veterans now enrolling in American colleges, according to the results of a survey recently reported in the *Journal of Higher Education*.

Only about 5 per cent of the veterans can be considered "problem" cases on the college campus, according to Dr. Robert W. Webb and Byron H. Atkinson of the office of veterans affairs on the Los Angeles campus of the University of California.

"The veteran does not generally constitute an educational, emotional, psychological or psychiatric problem," they report. "The fact which we, as educators, need to face is that the returning veteran generally has well defined ideas, which he expects in a measure to be recognized by the institution of his choice, and a clearly defined goal, which he expects to reach with all possible expedition."

Compton Fears Political Control of Research

Fear of political control of university research was expressed recently by Dr. Karl T. Compton, president of Massachusetts Institute of Technology, in an address before delegates to the annual conference of the Association of American Universities at Princeton, N. J. He stated: "We must stand firm in not permitting any political control of university research through government grants."

Dr. Compton expressed approval of a new tendency of companies operating in the same field to set up industry-wide foundations that make grants for fundamental studies in that field. There are good grounds for supporting the view that "secrecy has no business in an educational institution," he added.

Two Nursery Programs for Veterans' Tots at Georgia

Two nursery programs have been inaugurated to take care of the children of married veterans and their wives attending the University of Georgia.

One is a play group, sponsored by the nursery department of the university's school of home economics under the direction of Dr. Pauline Park Wilson, dean. It takes care of children Monday through Friday between 8:30 and 11:30 a.m., the charge for which is \$1.25 a week, including fruit juice and cod liver oil.

A community nursery school, organized by the Athens recreation department and located near the campus, is especially for veterans' families. Its hours are from 8:30 a.m. to 5 p.m.; Monday through Friday. For \$3 a week the children get a morning snack, a hot lunch, supervised play and a nap. Both schools opened September 30.

Canadian Veterans Jam Colleges, Too

The rush of veterans to Canada's 35 colleges and universities to study under the veterans' rehabilitation program is straining the facilities in that country. About 40,000 veterans have enrolled. The prewar high enrollment for the country was 35,000. The University of British Columbia has placed 100 huts on its campus to help accommodate 8500 students, 5000 of whom are veterans.

Veterans' Applications Exceed World War I

Nearly as many veterans have applied for World War II education and training benefits as served in the armed forces during World War I, the Veterans Administration announced recently.

A total of 4,549,654 veterans had applied for education and training by September 30. Of these, 4,042,121 had applied under the G.I. bill and 507,533 under the vocational rehabilitation act for disabled veterans.

V.A. compared this with a total of approximately 4,757,000 who served in the armed forces in World War I.

Veterans in schools and on-the-job training at the end of September totaled 1,382,563, of whom nearly half were enrolled for job training. This is an increase of more than 133,000 over the August 31 figure.

Under the G.I. bill, 742,064 were in schools and 523,091 in job training on September 30. Under the vocational rehabilitation act, job training led with 62,189, while school enrollees totaled 55,219.

A total of 636,036 veterans had completed or discontinued their training under both laws by September 30. Most of those who had discontinued their training, V.A. pointed out, had made plans to reenter training later.

More than 2,500,000 veterans who have applied for education and training have not yet entered upon any courses because the majority is electing to begin training or education later.

N. Y. U. Acquires Old Residences

Three buildings that have been landmarks in Washington Square, New York City, since 1832 have been leased by New York University from the trustees of Sailors Snug Harbor, it was announced recently by Dr. LeRoy E. Kimball, vice chancellor and controller of the university. The buildings were acquired to relieve the congestion caused by the recent record enrollment at the university.

The specific future of the three buildings has not yet been determined. The university does not plan to alter the exterior of the buildings but extensive interior renovations will probably be made.

Names in the News

William D. Stockbridge, formerly assistant comptroller of Boston University, has been appointed comptroller to succeed the late *Ralph E. Brown*, who died on September 6, 1946.

Charles B. Stanton has been appointed assistant treasurer of Carnegie Institute of Technology to succeed *W. A. Morten*, who retired recently.

J. S. Illick, dean, has been appointed acting business manager of the New York State College of Forestry at Syracuse University to succeed *W. W. Chipman*, who retired.

S. Ralph Lazrus, treasurer of the Benrus Watch Company, has been elected president of the Albert Einstein Foundation, Inc., which plans to open a Jewish sponsored, nonsectarian, non-quota university in Waltham, Mass.

G. E. Florence has returned to the University of Georgia where he will take over the duties of manager of the university stores, a position he held prior to entering the navy in 1942.

Dr. Charles W. Cole, 40, was recently inducted as the twelfth president of Amherst College and is the youngest man ever to head the 125 year old liberal arts institution. Presidents of 27 eastern colleges were present at the installation ceremony on October 27.

Flora Burton has recently been appointed director of residence and student personnel at the Eastman School of Music in Rochester, N. Y. She was formerly director of residence and a faculty member of Russell Sage College.

Colgate Whitehead Darden Jr. succeeds the late *John Stewart Brown* as chancellor of the College of William and Mary. Mr. Darden, former governor of Virginia, is the sixteenth incumbent to the chancellorship, with *George Washington* having been first to hold the position during 1788-89.

Charles T. Morgan, director of public relations at Centenary College, has been appointed to succeed *Walter L. Russell* as president of Wood College at Mathiston, Miss.

Fred H. Leinbach will succeed *Lyman E. Jackson* on January 1 as

president of South Dakota College of Agriculture and Mechanic Arts. *Dr. Leinbach* is now assistant dean and head of the department of animal husbandry, University of Maryland.



Dr. Martin D. Whitaker was inaugurated on October 20 as the eighth president of Lehigh University. He is 44 years old. *Dr.*

Whitaker, former professor of physics at New York University and the University of Chicago, was the wartime director of the Clinton Laboratories, Oak Ridge, Tenn., where he worked on the development of plutonium.

Dr. Charles Spurgeon Johnson was elected president of Fisk University on October 29. He is the first Negro to head the university, which was founded 80 years ago. He succeeds *Dr. Thomas E. Jones* who resigned last June to become president of Earlham College, Richmond, Ind. *Dr. Johnson* was recently appointed by President Truman as a delegate for the United States at the Paris meeting of U.N.E.S.C.O. and was one of 26 educators sent to Japan at the request of Gen. Douglas MacArthur to aid in revising the Japanese educational system.

Dr. Ralph C. Jenkins, 54, president of Danbury State Teachers College in Connecticut, died October 2 of a heart attack while on the college campus. A former president of the Connecticut Association of Public School Superintendents and the New England Teacher Training Association, he was a prominent Rotarian.

Jessie P. Bogue has succeeded *Walter C. Eells* as executive secretary of the American Association of Junior Colleges. *Dr. Bogue* recently retired as president of Green Mountain College at Poultney, Vt.

Herbert Jackson Root has succeeded *Edgar K. Morrow* as president of Kansas Wesleyan University at Salina.

Capt. William W. Edel, U.S.N., has succeeded the late *Cornelius W. Prettyman* as president of Dickinson College, Carlisle, Pa.

Lewis G. Elliott, 73, president of LaSalle Extension University in Chicago, died October 22.

DIRECTORY OF ASSOCIATIONS

Associations of College and University Business Officers

Central Association

President: C. D. Simmons, University of Texas; vice president: Herbert Watkins, University of Michigan; secretary-treasurer: T. E. Blackwell, Washington University.

Executive Committee: A. W. Peterson, University of Wisconsin; Lawrence R. Lunden, University of Minnesota; H. H. Brooks, DePauw University; William B. Harrell, University of Chicago.

Eastern Association

President: W. R. Wagenseller, Drexel Institute of Technology; vice president: H. W. Herzog, George Washington University; secretary-treasurer: Boardman Bump, Mount Holyoke College.

Executive Committee: C. H. Wheeler III, Richmond University; George E. Van Dyke, Syracuse University; J. Harvey Cain, Board of Higher Education, New York; Charles E. Grubb, University of Delaware; R. K. Bachelder, Simmons College.

Convention: Dec. 1-3, Hotel Statler, Boston.

Southern Association

President: W. Wilson Noyes, University System of Georgia; first vice president: George R. Kavanaugh, Berea College; second vice president: W. T. Ingram, Alabama Polytechnic Institute; third vice president: Howard MacGregor, Agnes Scott College; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Executive Committee: Jamie Anthony, Georgia School of Technology; E. H. Fisher, Southeastern College; J. B. Paysinger, Columbia College; James F. Blair, Union College; C. B. Markham, Duke University.

Western Association

President: J. Orville Lindstrom, University of Oregon; vice president: William Norton, University of California; secretary-treasurer: K. B. Sauls, Brigham Young University.

Executive Committee: O. D. Garrison, University of Idaho, Southern Branch; Nelson A. Wahlstrom, University of Washington; Robert D. Fisher, University of Southern California.

Association of Business Officers in Negro Colleges

President: G. Leon Netterville Jr., Southern University; vice president: Isiah Creswell, Fisk University; secretary: V. D. Johnston, Howard University; treasurer: Mark Birchette, Dillard University.

Executive Committee: Don A. Davis, Hampton Institute; Viola Means, South Carolina State College; L. H. Foster Sr., Virginia State College; W. A. Morgan, Bishop College.

Educational Buyers Association

President: James J. Ritterskamp Jr., Washington University; vice president:

Gerald D. Henderson, Vanderbilt University; vice president: Charles Hoff, University of Omaha; vice president: H. B. Bentsen, George Williams College; treasurer: Edward K. Taylor, Cornell University Medical College; executive secretary: Bert C. Ahrens.

Convention: May 1-3, Omaha, Neb.

Association of Superintendents of Buildings and Grounds of Universities and Colleges

President: L. F. Seaton, University of Nebraska; vice president: Paul H. Elleman, Ohio State University; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Executive Committee: L. F. Seaton, University of Nebraska; Paul H. Elleman, Ohio State University; A. F. Gallistel, University of Wisconsin; Henry E. Pearson, Indiana University; John J. Colgate, University of Pennsylvania.

Convention: May 12-14, Ohio State University, Columbus.

Association of College Unions

President: D. R. Matthews, University of Florida; vice president: Douglas O. Woodruff, University of Utah; secretary-treasurer: Edgar Whiting, Cornell University; editor: Porter Butts, University of Wisconsin.

Convention: April 10-12, Illinois Union, University of Illinois, Urbana.

American College Public Relations Association

President: Harold K. Schellenger, Ohio State University; vice presidents: research, E. Ross Bartley, Indiana University; membership, W. Henry Johnston, Colgate University; regions, Horace Renegar, Tulane University; radio, Elmer G. Sulzer, University of Kentucky; athletics, William H. Wranek, University of Virginia; secretary-treasurer: Max E. Hannum, Carnegie Institute of Technology.

Publications: editor, Lorena Drummond, Southern Illinois Normal University; associate editor, Paul Faris, Hendrix College; business manager, Roy K. Wilson, National Education Association.

Convention: May 14-17, Coronado Hotel, St. Louis.

National Association of College Stores

President: Norman M. Gay, Boston University Book Stores; vice president: A. W. Littlefield, Barnes and Noble, Inc., New York City; immediate past president: E. C. Rafter, University Cooperative Society, Austin, Tex. Directors: Fred Davis, The Citadel Canteen, Charleston, S. C.; John H. Jenkins, St. Louis University Book Stores, St. Louis; H. H. Hays, Berea College Store, Berea, Ky.; George Racine, Student Book Exchange, Evanston, Ill.; manufacturer's representative: Charles Lofgren, Sanford Ink Co., Chicago; executive secretary: Russell Reynolds, 189 W. Madison St., Chicago.

Convention: April 27-30, Hotel Statler, Cleveland.

Edward Keenan Lebohner has been appointed business manager of Alfred University, according to an announcement by Dr. J. Edward Walters, president. Mr. Lebohner served two terms as president of the alumni association and is now a member of the board of governors.

Dr. James Herbert Case Jr. was recently inaugurated president of Washington and Jefferson College, which first opened its doors for students in 1780. Dr. Case's brother, Everett N. Case, is president of Colgate University.

Howard M. MacGregor, assistant business manager-treasurer of Agnes Scott College, has been appointed treasurer of Muhlenberg College, effective January 1.

Dr. Cloyd Heck Marvin, president of George Washington University, has been appointed deputy director of the research and development division of the War Department. The appointment, made by the Secretary of War, will not interfere with Dr. Marvin's duties as president of the university. Under Maj. Gen. Robert S. Auerand he will cooperate in directing necessary scientific research to keep the United States up on scientific developments. Dr. Marvin was active in the development of the atomic bomb.

Anne Elizabeth Shannon, Albuquerque, N. M., has been appointed director of the bureau of faculty teaching aids at the University of Omaha. A Wave officer during the war, she was a school teacher in Albuquerque prior to being commissioned in the navy.

Elliott E. Foster has been recently named controller of Northwestern University. He served as a commander in the naval reserve during the war and was formerly senior accountant with Baumann, Finney & Co.

Frank Louis Hayes, formerly director of physical education at Marietta College from 1927-1942, has rejoined the college staff as administrative assistant to the president and to the business manager. He served during the war as a lieutenant colonel in the U. S. Army in the Pacific.


Dr. Raymond R. Paty, former president of the University of Alabama, has been appointed chancellor of the University System of Georgia and will take office January 1.

PRODUCT INFORMATION

Information on the materials, equipment and supplies with which an institution is built, operated and maintained and which are used in its various departments is of vital interest to those charged with the business operation. College and University Business recognizes the importance of this information and believes it has rendered a real service by grouping manufacturers' announcements and new product descriptions into a separate part of the magazine. We believe this is an infinitely better plan than to mix such information through the editorial pages where it becomes obscure and confusing.

You will find manufacturers' advertisements from pages 45 through 59. Pages 60-64 contain descriptions of new products and items of interest. Further details on any product advertised or described may be obtained without obligation and with a minimum of effort by use of the postcard below.

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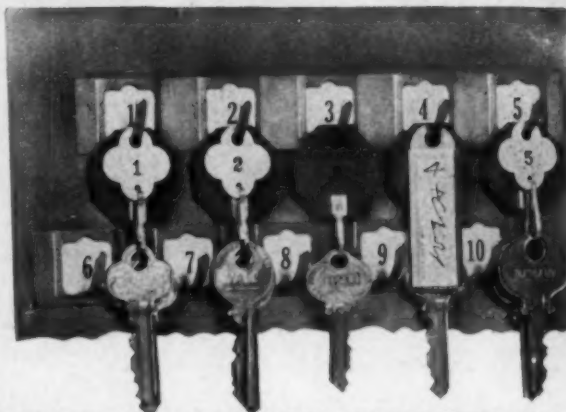
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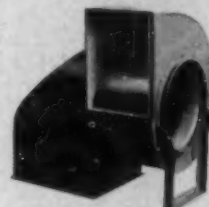
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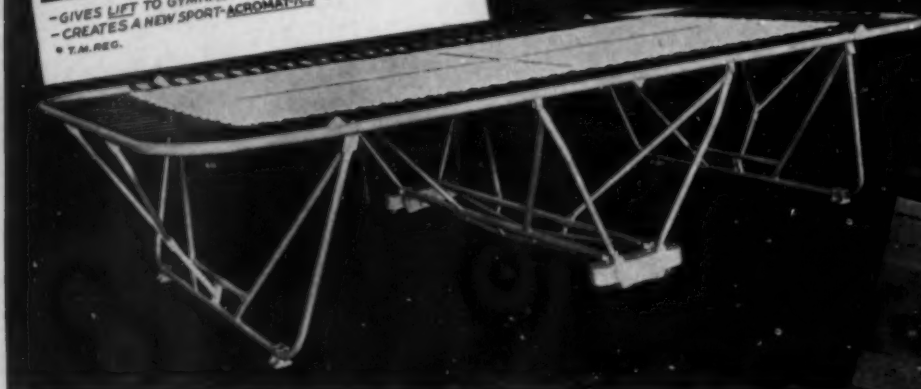
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A new gym activity... a new sport... to give a real lift to your physical educational program. Fits naturally into your regular training activity as a medium for building supple bodies and developing muscular coordination. But... besides that!... the Medart Acromat-Trampolin has definite "Play-Appeal"... youngsters will enjoy it as a separate recreational activity.

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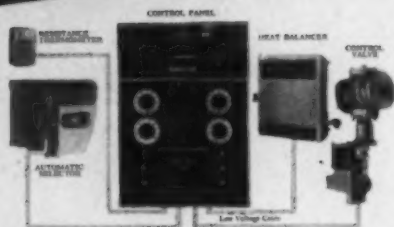
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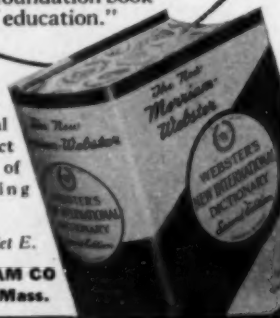
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... it is wise to consider the *genuine wax content* when choosing a floor wax. The greater the amount of genuine wax, the better the protection for your floors, and the easier their maintenance. *Finnell-Kote*, for example — a *Finnell Spirit Wax* — has a wax content three to four times greater than average wax.

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Finnell-Kote is a solid wax; so solid, in fact, that it must be heated to liquid form before it can be applied. Heating is done in a *Finnell-Kote Dispenser* attached to a *Finnell* machine. The melted wax is fed to the floor through the center of the brush ring and penetrates deeply while the machine gives uniform distribution. *Finnell-Kote* sets in *less than ten seconds*, and polishes to a beautiful finish. . . . *Finnell Liquid Kote* is *Finnell-Kote* in thick liquid form. Has the same basic stock as *Finnell-Kote* and all its fine qualities. . . . *Finnell Paste Wax* is a semi-solid of same basic ingredients, et cetera, as *Finnell-Kote*. . . . *Finnell Cream Kote* is similar to *Finnell Paste Wax* but heavier-bodied.

For consultation or literature on *Finnell Waxes* and *Maintenance Machines*, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 4111 East St., Elkhart, Ind. Canadian Office: Ottawa, Ont.



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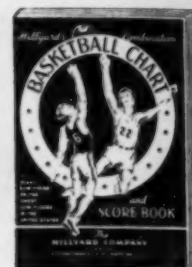
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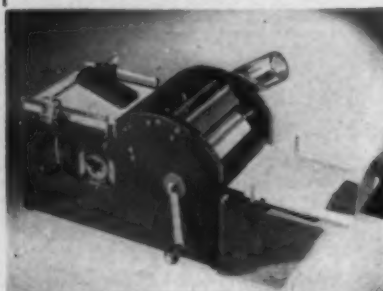
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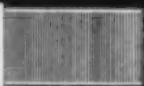
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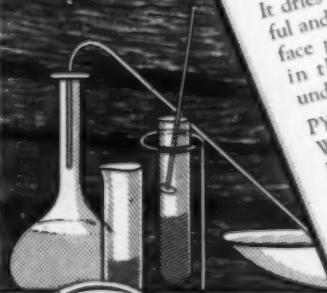
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Any word, any phrase repeated again and again patiently!

YOU'RE TEACHING Spanish. Let's suppose you've distinguished between the distinct and the rapid pronunciation of vowels. You'd like to repeat native spoken examples of each vowel until your students have mastered them fully.

But how? By blindly searching for twelve examples on a language record? No. By simply using the new Fairchild Language Master. It's a word or phrase-spotting playback machine. It has an illuminated 'spotting dial' that records the location of any word or phrase on a record. It has a hand operated lever which returns the pickup to the word or phrase to be repeated. It permits any word or

phrase to be repeated again and again — until mastered.

Operation is simple. The on-off switch, volume control, spotting dial and lever are conveniently grouped on the turntable panel. The amplifier-speaker unit is mounted in the removable, cable-connected cover so that it can be turned around to face the class. If desired, the Language Master may be supplied without the amplifier-speaker unit for use with headphones for quiet listening; or for connection to any independent amplifier or radio.

Where record-making equipment is available, instructors may make and chart

records especially adapted to class needs. In addition, the Language Master can be used to teach many phases of musical theory, appreciation and history from recordings. And radio program directors can use it for spotting in background effects. Or it can be used for synchronizing recorded commentary with silent films or slides.

The Fairchild Language Master can be operated from any 110-120 AC light socket. It is priced within range of both classroom and student ownership. For complete information address: 88-06 Van Wyck Boulevard, Jamaica 1, New York.



Fairchild CAMERA
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SOUND
EQUIPMENT



WHAT'S NEW.....

The easiest way to get more information about the new products described in this section is to use the postage paid card opposite page 44. Just circle the key number on the card which corresponds with the number in the headline of each item. COLLEGE and UNIVERSITY BUSINESS will send your request to the manufacturer.

Automatic Stencil Duplicator

CUB 236

Features 12 New Exclusive Developments



Described as "the most fully automatic stencil duplicating machine in the world," Model 250, announced by the Niagara Duplicator Company, features 12 new exclusive developments. The title is descriptive, for the machine turns out 250 copies a minute. There are seven additional speeds, ranging downward by steps to 60

copies a minute, and the feed is automatic at all speeds.

Another outstanding feature is a newly developed dual predetermining counter which has two sets of dials: one counts on the number of copies printed and the other counts off the predetermined numbers the machine has been set to print. When the desired number has been printed, the counter automatically shuts off the machine and stops the drive.

An auto-accelerating motor drive mechanism regulates the starting speed of the duplicator. Regardless of the speed, the machine starts printing at a low rate and picks up to the desired printing speed gradually so that there is no strain on the machine in starting and, emphasized as even more important, proper air currents are set up in the paper receiving tray to ensure that the first sheets are stripped properly from the drum.

Model 250 offers for the first time a full length motor drive and storage cabinet, which extends the full length of the machine, including the receiving tray. Greater stability is thus provided, rocking or vibration is minimized and the extra length offers greater storage and shelf space.

"Hairline registration" affords the greatest possible utilization of the stencil process, according to the manufacturer. It makes practical and routine the reproduction of manifold forms, two or more color work, inter-office forms, timecards, postcards, specifications and a great variety of other work.

Other features include a new built-in lamp which is adjustable and which disappears when not in use; a double action paper guide lock, and the "Speed Sheeter" which will interleave 250 speed sheets between 250 printed copies per minute.—*Niagara Duplicator Company, 128 Main Street, San Francisco 5, Calif.*

These Recipes

CUB 237

Will Aid Dietitians in Food Emergency

With the shortage of meat, distraught dietitians will welcome the series of recipes created by Louis P. DeGouy, internationally known chef, featuring "Art's Brand" corned beef hash. Each recipe sets forth the ingredients and complete preparation instructions for a new and interesting way of serving this old time favorite.

Among the recipes included are shirred eggs "Art's Brand," corned beef hash puffs, corned beef hash burgers, corned beef hash loaf club style, corned beef hash rings and corned beef hash omelet surprise. Recipes are printed on individual index cards to fit the customary chef's recipe file box. They are available free to chefs, stewards, dietitians and others interested in the preparation and purchase of food.—*Arthur L. Peirson and Company, 342 Madison Avenue, New York 17, N. Y.*

Magnetic Wire Recording

CUB 238

Has Extensive Use in Colleges

Magnetic wire recording, which has been adapted for recording reproducing and dictation, is available in two improved and perfected post-war models now in quantity production at the Peirce Wire Recorder Corporation. One is for all heavy duty office dictation, transcription and playback



purposes; the other is a portable model for two way air communication. According to Charles P. Peirce, president of the manufacturing company, the demand anticipated for use in business offices has grown to include utilization by teachers in universities, public, private and business schools; in medical schools, hospital training courses, extension work, voice and speech classes.

The features requested by business men and educators have been incorporated in the heavy duty business unit. In recording, remote control permits dictation to the recorder from a distance of 50 to 100 feet; in transcribing, the secretary or typist controls the recorder by a button attached to the typewriter or by a foot pedal and her hands are left free for typing.

In recording, sound is "frozen" magnetically on a thin stainless steel thread which comes in reels weighing only

a few ounces but have a capacity of from sixty-six minutes to more than two hours of continuous recording. Through one microphone, or a mixer controlling four microphones, anything from personal dictation to a training course or even a convention can be recorded.

Messages can be played back as many as 100,000 times without loss of volume or tone quality. The record spools are said to offer the most compact and permanent method of filing important statements and they can be mailed or transported. "Wire letters" can be sent immediately upon completion of dictation, thus eliminating any delay for typing. There is an automatic two way telephone pickup.

Recordings can be erased automatically in the process of dictating a correction or in using the wire for a new recording and the durability of the wire is said to be unlimited.—*Peirce Wire Recorder Corporation, 1328 Sherman, Evanston, Ill.*

Swinging Inkwell Brackets

CUB 239

For Chairs, Tables, Laboratory Furniture

The Squires swinging inkwell bracket will be found ideal for use on chairs, tables and laboratory furniture. The bracket, which is the result of much experimentation plus experience in the service of educational institutions, is made to give years of trouble-free service, the manufacturer states. Of all steel construction and heavily plated with cadmium, the bracket has a silver-like appearance. A wide flange holds the inkwell securely.

Clean, evaporationless, noncorrosive and inexpensive, the improved Squires No. 12S Common Sense Inkwell is available in three sizes, to fit borings $1\frac{1}{2}$, $1\frac{3}{4}$ and $1\frac{7}{8}$ inches. All sizes extend $1\frac{1}{8}$ inches above the top of the desk and have a $\frac{3}{4}$ inch opening for the pen. The inkwells are equipped with interchangeable bakelite screw caps.—*Squires Inkwell Company, Pittsburgh 15, Pa.*

Concrete Maintenance

CUB 240

Discussed in Free Bulletin

Buildings and grounds superintendents will find information applicable to many campus problems in the current issue of the *Trowel*, a bulletin published periodically by the Master Builders Company for men in the construction industry. The subject of the current issue, which is Vol. 1, No. 9, is concrete maintenance.

Causes of concrete disintegration and how to make successful repairs are discussed and practical information is presented on such subjects as increasing the useful life of concrete floors by "armorplating" controlling the shrinkage in machinery grouts, restoring buildings, repairing hydraulic structures, waterproofing grain elevators and sewage treatment plants and sealing and decorating concrete and masonry surfaces. Much of the information is presented pictorially with a minimum of written text. A copy of this 12 page bulletin is available free upon request.—*The Master Builders Company, Cleveland 3, Ohio.*

Rotary Lock

CUB 241

Has Many Advantages for Colleges

The Sterling Rotary Lock offers many advantages to colleges wherever protection calls for use of an exposed padlock. Made without springs or rivets, this versatile indoor-outdoor padlock cannot jam and, because the round shackle rotates, the strain is on the body and not on the locking piece.

Master keys which will operate a series of 72 Senior or 60 Junior Locks, or any multiple thereof, can be ordered. Identical locks to operate from the same key can be ordered from the factory also. Two keys are furnished and a 9 inch fastening chain can be obtained.

Made of cold rolled steel, cadmium plated, and with brass inner workings, this rotary lock is available in two sizes: $2\frac{1}{4}$ inches in diameter and $1\frac{3}{4}$ inches in diameter.—*Sterling Lock Company, 1301-H South Third Street, Minneapolis 4, Minn.*



Tire Carrier

CUB 242

Solves Problem of Lifting Heavy Wheels



Changing of heavy tires on college buses and trucks becomes a one man job with the use of the Ted Tire Carrier. The spare tire and wheel are held in the carrier which is bolted to the chassis frame of the vehicle either at the rear or at the side.

With this carrier, no straining or lifting is necessary to remove the spare and replace the flat; even tilting to an upright position for rolling is done without lifting. To change a tire, the holding clamps are released and the cradle portion of the carrier, holding the tire and wheel, is pulled out and away from the body of the vehicle to a position where the tire is clear and can be tilted upright while it is still attached to the carrier. The tire then rests on the ground and, when detached from the carrier by the removal of the holding clamp, is rolled to the wheel requiring replacement. The flat is rolled to the carrier and clamped to the cradle while in upright position after which it is tilted on the cradle swivel to horizontal position, pushed back under

the chassis in carrying position and securely fastened there with positive clamps that prevent vibration.

The carrier is constructed to withstand a load stress equal to four times the load it carries under normal use. It is available in two sizes and with choice of holding down bars—for disk wheel or demountable rim.

Model	Maximum Capacity	Weight
A	8.25—20	72 pounds
B	11.00—22	93 pounds

Ted Tire Carriers will be sold through truck dealers.—*T.E.D. Corporation, 928 South Flower Street, Los Angeles 15, Calif.*

Adjustable Typewriting Table

CUB 243

Contributes to Good Posture Development



Usually when a desk is too high or too low, the individual adjusts himself to the inflexible object and an aching back or bad posture is the result. To overcome this problem, W. T. Herring has designed a new metal school typing table that is expected to satisfy administrators concerned with developing good posture in their students and in providing comfortable working conditions for their employees in the business operation of the school.

Even the legs of the table are adjustable. Normally, the table is 26 inches high but it can be raised to 30 inches through a 4 inch leg adjustment. The table is 19 inches wide and 34 inches long and in the center is a well 12½ inches wide and 14½ inches long. An adjustable raising device in the well has a rise of 3 inches. When the typing bed is lowered to 26 inches, the top of the table is 29 inches and the table has 23½ inch legroom.

When the adjustable platform is raised to its full height, the table can be used as a regular flat top table. The table, which has two shelves for storing books and personal effects, has a black linoleum top with chrome trim and is finished in pearl grey.

A platform which can be installed on any typewriter desk or table has been designed also and permits adjustment of the typewriter upward to the desired height of the typist. It is 12½ inches wide and 13 inches long and adjusts from 1¼ inches to 3 inches in height.

The 4 inch table leg adjustment has been incorporated in a bookkeeping table, too. Its dimensions are 19 by 34 by 26 inches. At the 26 inch height, the table has 25 inch legroom and at 30 inches, 29 inch legroom. Like the typewriting table, it has a black linoleum top with chrome trim, pearl gray finish and two shelves.

Although the tables and platform are not yet in production, department heads planning requisitions for this type of equipment will be interested in knowing that these adjustable types are to be available.—*W. T. Herring, Superintendent of Schools, Calumet City, Ill.*

Office Composing Machine

CUB 244

Produces Copy for Printing, Duplicating Processes

A completely streamlined office composing machine is the new Vari-Typer which colleges and universities will find useful in producing copy for all printing and duplicat-



ing processes. This machine uses more than 600 styles and sizes of type in addition to foreign languages, special chemical, library, tariff and mathematical types, operated from a keyboard similar to that of the standard typewriter.

Automatic justification, controlled by a dial near the center of the operator's vision, produces copy with an even right hand margin. Type is instantly changeable as is spacing of the characters to the inch. Another feature is the vertical carbon ribbon attachment that feeds a new section of carbon for each impression, giving clear, sharp copy which can be used for photo-offset reproduction or direct-to-plate duplication.

The new Vari-Typer incorporates 130 new parts involving many improved features in the machine's operation. Among the conveniences included in the new model are a paper table for erasures and stencil light, with a switch on the keyboard.—*Ralph C. Coxhead Corporation, 333 Avenue of the Americas, New York 14, N. Y.*

Publication on Sound Systems

CUB 245

Lists Basic Standards for Equipment

"School Sound Systems," a report intended to give general information relative to the selection, installation and utilization of school sound equipment, has been prepared by the Joint Committee on Standards for School Audio Equipment, serving at the invitation of Dr. John W. Studebaker, U. S. commissioner of education. Issued by the Radio Manufacturers Association, the booklet represents thinking on the part of both leading radio manufacturers and representative educators working in the field of audio education.

Nontechnical in its language, the publication explains what schools may obtain and what specifications should be insisted upon when ordering either complete sound systems or limited installations. In addition, it offers a guide

to school architects in designing modern school buildings for the maximum use of school audio equipment.

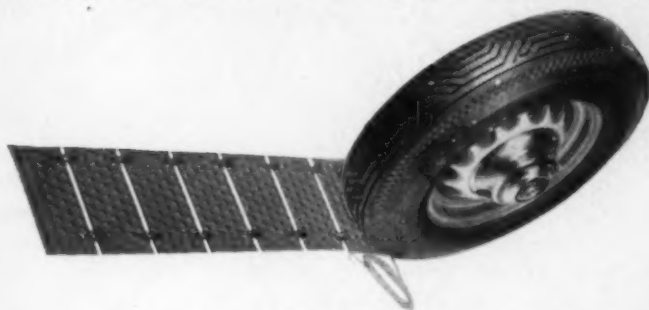
Single copies of "School Sound Systems" can be obtained without charge from either the Radio Section, U. S. Office of Education, Washington 25, D. C., or the Radio Manufacturers Association; requests for prices on quantity orders should be addressed to the R.M.A. Engineering standards covering various components of sound systems and of particular interest to school architects, purchasing agents and engineers are being developed by the R.M.A. Engineering Department and will be made available without charge as they are released by R.M.A.—*Radio Manufacturers Association, 1317 F Street, N.W., Washington 4, D. C.*

Tire Accessory

CUB 246

Assures Traction Regardless of Weather

School buses and trucks will get through in spite of ice, snow, mud, sand and ruts if the vehicles are equipped with Tire-Trac which literally provides an all metal "Half Track." Of rigid but flexible tractive elements, this accessory has an efficient, well balanced design. The plates are two ply steel, electro-welded and rustproof treated before



painting and are joined firmly together with sturdy steel links. Upper studs grip the tire tread; lower studs grip the roadway. Offering year-round traction insurance for all-weather driving, Tire-Trac folds up into a compact unit for convenient carrying.

To pull his bus or truck out of a bad spot, all the driver has to do is open up the Tire-Trac, drop it in front of the wheel, drive onto a firm surface then replace the Tire-Trac in the tool kit. By means of a cable attachment, quickly and easily looped over the bumper, the Tire-Trac follows the truck out of the hazard and the driver does not have to walk in the snow or mud to retrieve it. Other uses pointed out by the manufacturer are as a jack base when stalled on soft shoulders; as a wheel block for stopping on hills, and as a wedge for disengaging locked bumpers.

The heavy duty model for trucks and buses is double width and is extra heavy, weighing 50 pounds a pair; in road position, the width is 12 inches, the length, 50 inches; folded for carrying, the dimensions are 12 by 8 by 6 inches per pair. The model for passenger cars and light trucks weighs 6 pounds a pair; in use it is 6 inches wide and 22 inches long; folded, the dimensions are 3 by 6 by 5 inches per pair.

Every Tire-Trac is guaranteed.—*Morton Manufacturing Company, 5105 West Lake Street, Chicago 44, Ill.*

Electric Record Turntable

CUB 247

Announced as Immediately Available

Welcome news in the college field is the DeVry Corporation's announcement of the immediate availability of a new electric record turntable. Operating at two speeds, 33 $\frac{1}{3}$ r.p.m. for transcriptions and 78 r.p.m. for regular records, the turntable is powered by a heavy duty "Green Flyer" motor and instant change-over from one speed to the other is provided. The instrument takes records up to 16 inches in diameter, providing 15 minutes' playing time for each side, and feather-touch needle pressure is said to make the records last longer.

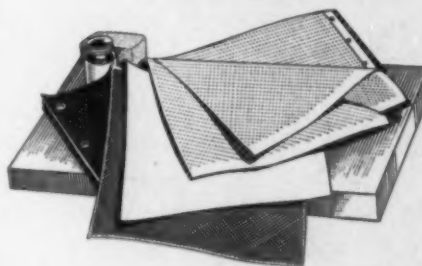


Brilliance of tone and life-like reproduction of voice and speech, free from distortion and objectionable surface noises, are assured by the pick-up and tone arm which embody the latest in design and engineering principles, according to the manufacturer. The turntable is for 105 to 120 volts, 60 cycle A.C. operations. Rustproof hardware throughout the case is said to add durability to its attractive appearance.—*DeVry Corporation, 1111 Armitage Avenue, Chicago 14, Ill.*

Trayless Duplicator

CUB 248

Features Simple Operation



No stencils, no inking, no waste of paper, no mechanism to get out of order, no waste of time adjusting a device to effect printing in the right

area—these are the negative assets of the "Eveready" Tray-Less Duplicator. On the positive side is its simplicity.

There are three gelatin sheets, each of which is good for several thousand copies. These sheets literally wash themselves, automatically clearing themselves within forty-eight hours after use. The operator simply places the master copy over the gelatin sheet, gently slides the palm of his hand over it and a copy is ready. The printing surface is 8 $\frac{3}{4}$ by 13 inches. Any bond paper can be used and postcards are said to reproduce perfectly. The master copy can be handwritten or sketched (with hectograph ink) or typewritten (with a hectograph ribbon). No additional material is required.

Although this duplicator will not replace the automatic duplicator required for larger jobs, it is expected

to be particularly helpful for personal use and for reproducing geography and history maps, classroom notes, objective types of tests, drawings for science and biology, unit lessons, diagnostic or remedial testing, library forms and administrative forms for school or class use. The price of the item is \$4.75.—*Pengad Manufacturing Company, Pengad Building, Bayonne, N. J.*

New Line of Filing Cabinets

CUB 249

Offers Wide Range of Models

A line of filing cabinets providing a choice of 11 models is now being marketed by the Lyon Metal Products, Inc. The cabinets are available with or without general locks, in suspension and nonsuspension types.



Characteristics of this new line include rounded corners on drawers and crossrails matching the modern styling of solid bronze handles and label-holders; easy rolling drawers which glide on six ball bearings and two floating rollers for perfect "flip-of-the-finger" operation; double stops—one set in the drawer and one set in the carrier—to prevent drawers from being pulled out and dropped accidentally; no waste of filing space; nonwobble follow blocks which slide the full length of the drawer and allow the hand that is used to move the follow block also to release the compression brake.

A $\frac{3}{8}$ inch pitch to the rear causes drawers to stay closed, and there is no rebound when the drawers are closed hard or when the cabinet is on an uneven floor. All that is necessary to remove the drawers is to open them wide and lift them out. There are no stops or catches to unlatch and there is a hand grip on the back of the drawer. The rounded corners on drawer fronts prevent danger of injury.—*Lyon Metal Products, Inc., General Offices, 425 Clark Street, Aurora, Ill.*

Mixing Valve for Showers

CUB 250

Has Automatic Safety Feature

Many new features are incorporated in the Josam Manufacturing Company's improved scald-preventing Moderator Mixing Valve, a unit which will assure safety in the use of school showers. One handle, controlling both hot and cold water, delivers cold water first then tempers slowly to warmer water as the handle is turned toward "hot"; hot water cannot flow if the cold water fails for the hydraulically operated shuttle valve shuts off the hot water instantly.

As all working parts are combined in a "Heart of Valve" unit which is accessible by removing the valve

bonnet, maintenance and repair are simple and easy. Fitting in only one position eliminates all possibility of faulty installation; removal of an old unit and installation of a new one are accomplished quickly. Renewal units are readily available, separately packaged.

All working parts of the Josam Moderator Mixing Valve are heat resistant, noncorrosive bronze; all washers are neoprene, built to withstand heat, wear and tear without swelling or distortion; bronze screens protect Heart of Valve on both hot and cold water sides from sediment and other foreign particles. The valve body is made of high quality bronze, chrome plated for exposed or concealed installations, and the valve bonnet is fitted with index plate which marks "off," "cold" and "hot" positions on the lever.—*Josam Manufacturing Company, 379 Empire Building, Cleveland 14, Ohio.*

Concrete, Wood Floor Treatments

CUB 251

Described in Specification Book

Book "B," the subtitle of a new specification book issued by Truscon Laboratories, describes concrete and wood floor treatments. It contains both complete and "short" specifications and illustrations, with the description of the product on the reverse side of the specification sheet. The book is subdivided into five sections: (1) "integral" hardeners—metallic types, including nonslip hardener; (2) chemical hardeners, that is, liquids which are brushed or swept over concrete floor; (3) concrete dye which is a patented article with Truscon; (4) surface coatings—rubber base floor coating, transparent sealer and nonslip mastic or covering, and (5) wood floor preservatives, including varnish.

Copies of Book "B" floor treatments are available upon writing.—*Truscon Laboratories, Inc., Caniff and G.T.R.R., Detroit 11, Mich.*

Air Freshener

CUB 252

Designed for Restroom Use

The standard Airkem Chlorophyll Air Freshener, devised for counteracting the many and varied odors owing to occupancy and industry, has been supplemented by a special formulation to take care of the odors peculiar to restrooms. The new product, made by Airkem, Inc., has been put on the market under the trade name of Airkem Red Label Rest Room Air Refreshener.

A special wall cabinet, of rolled steel with white enamel finish and equipped with a locking device, has been designed for restroom use. Two such cabinets, each holding one 15½ ounce bottle of Red Label, are usually required for the ordinary restroom. One of the main advantages of the new product, the manufacturer points out, is that of constant operation. All that is necessary to solve the odor problem in restrooms is to unscrew the cap of the bottle and raise the wick 3 inches, it is asserted; the product works twenty-four hours a day. It is no trouble to install and no bother to operate.—*W. H. Wheeler, Inc., 7 East Forty-Seventh Street, New York 17, N. Y.*

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DA-LITE GLASS-BEADED FABRIC—Da-Lite's own process of applying millions of tiny glass beads evenly to the surface of the fabric is the reason underlying the more brilliant and sharply defined reproduction that is so notable with the Challenger.

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Only an actual comparison with other screens will prove the claims being made about Da-Lite's famous Challenger. In no other screen will you find the Challenger's outstanding features and improvements. *Here is everything* you could want. It's the **Challenger** for perfect pictures—brilliant and true reproduction of colors, sharp details. It's the **Challenger** for faster set-up and easier adjustment of height. It's the **Challenger** for long, dependable service—for smart, rich appearance—for quality and value at a price within your means . . . Compare! You'll choose the CHALLENGER.



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